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ABSTRACT

To determine if severely handicapped children were in fact not ready to utilize vocational services when they leave school (due to lack of prevocational work experience), handicapped children were provided two years of vocational counseling and sheltered work experience. The sample of 280 children (ages 14 to 17 years), were divided into experimental (Es) and control (Cs) groups in each disability grouping (physically handicapped, educable mentally handicapped, and emotionally disturbed). The Es received vocational service two days a week for two years. All children were assessed before and after the program and 12 months later. Results showed that the physically handicapped Es had higher potential for service than the physically handicapped Cs. The physically handicapped benefited the most from the program. The mentally handicapped showed gains in socialization and interpersonal adjustment, though not much gain in employability. The emotionally disturbed showed no significant benefits. Ethnic and socioeconomic factors were important determiners of progress (the prevocational service was least effective with children facing problems of the poverty subculture), and more integration with the child's educational program is recommended. Appendixes include forms, case histories, many tables, and additional information. (KW)

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FINAL REPORT
Vocational Readiness for Young Disabled Students in New York City

A 5-YEAR COLLABORATIVE STUDY

The University of the State of New York
The State Education Department
Division of Vocational Rehabilitation
Albany, New York 12224

June, 1968

ED 042318

EC030011

Final Report of a 5-Year Collaborative Study[1]

on

"The Effectiveness of Early Application of Vocational Rehabilitation Services in Meeting the Needs of Handicapped Students in a Large Urban School System"

Project Number: **RD 829**

Grantee Organization: **The University of the State of New York**
The State Education Department
Division of Vocational Rehabilitation
Albany, New York 12224

Date of Report: **June, 1968**

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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[1] This study was supported in part by a Research and Demonstration Grant (RD 829) from the Vocational Rehabilitation Administration, U.S. Department of Health, Education and Welfare, Washington, D.C.

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Dedication

Dedicated to Morris Klapper[2]

whose knowledge and crystal clarity sharpened our own insights into problems of unlimited number and complexity

---

[2] Deceased November 1966.

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
162 WASHINGTON AVENUE
ALBANY, NEW YORK 12210

ADRIAN LEVY
ASSISTANT COMMISSIONER FOR
VOCATIONAL REHABILITATION

August 1, 1968

Dr. James E. Allen, Jr.
Commissioner of Education
State Education Department
Albany, New York

Dear Dr. Allen:

The project for examination of the effectiveness of early services in the rehabilitation of handicapped students in a large urban school system is now completed. During the first five years almost 300 students were included in the study which provided for collaborative efforts by the public school system, three voluntary rehabilitation service organizations and our State Education Department. The sixth year was devoted mainly to data analysis and other qualitative evaluation for completion of this final report on the total experience.

The project had the very able leadership of Mr. Morris Klapper whose untimely decease in November, 1966 was a severe blow to the continuity of effort and coordination which he had developed during his tenure as Project Director. Just prior to his death, he had authored the Three-year Interim Report describing the project experiences with the first group of 140 handicapped students. That report and his foresight in involving our project staff and that of the collaborative agencies in continuous discussions of the goals, principles and procedures of the study enabled us to continue and complete the effort as planned.

Commendation and appreciation are due Mrs. Olga M. Riley who assumed unhesitatingly the responsibility for completion of this effort as Supervisor of the project and Mr. Ellis Reida, Project Rehabilitation Counselor, who not only increased his client responsibilities but contributed greatly to the development of this final report authored by Mrs. Riley. It is due chiefly to their dedicated interest and efforts that we were able to complete this program.

Of the several generic problems identified in this experience, perhaps the most intense appears to be the recognition that we have thus far inadequately met the unique needs of the student population at the level of their cultural development. Within the program structure of the agencies involved in this collaborative study there is the need to develop staff methods and revision of past approaches in order to reach that segment of the urban community which is most in need of rehabilitative services.

We are hopeful this research experience may stimulate experimentation with methods of service which will make available new, imaginative resources for all of the agencies collaborating in serving handicapped students.

Appreciation is expressed to the New York City Board of Education, Department of Health, Federation of the Handicapped, the New York City Chapter of Association for Retarded Children, Federation Employment and Guidance Service and the Division of Handicapped Children of our State Education Department for their interest and contributions in the development and completion of this project program.

It is my privilege and pleasure to present this report for your consideration.

Sincerely yours,

Adrian Levy

Adrian Levy
Assistant Commissioner for
Vocational Rehabilitation

Preface

In presenting the final report of a 5-year collaborative study, we are deeply appreciative of the many agencies contributing time and valuable advice toward this effort. During the earliest phases of this program, consultation and advice were immediately sought and obtained from key personnel in other Divisions of the State Education Department; their suggestions and ideas were extremely valuable at that time, as has been their subsequent thinking as the Project progressed. Arranging for the involvement of 7 different agencies in addition to a major Division and 3 Bureaus of the New York City Board of Education, planning the project design, obtaining Federal support, and engaging a Project Director, delayed the start until June 1962. During the next 2 months, several actions were effected in order to expedite implementation of the study: a) an interagency Coordinating Committee was created and met in July 1962, to consider and act upon basic policy matters; b) a Research Advisory Committee was created and met in July, to review the research design and suggest certain modifications; c) a committee of examining psychologists was created and met to review the study's test requirements and use of rating instruments; d) other project staff were appointed; e) case-finding was begun with the cooperation of the Board of Education; f) evaluation teams were set up for each of the three disability categories for the purposes of case screening and assignment; and g) conferences were conducted with each of the three private rehabilitation agencies to design comprehensive programs as set forth in contractual responsibilities.

By early October 1962, a study sample had been almost completely selected and was already undergoing its initial evaluation.

During early Spring of 1964, a new study sample was screened and selected for preliminary evaluation of a replicate group. This group was appraised and the service program was initiated as scheduled, for February of 1965. Structural changes deemed necessary in the service program, as a result of our experience with the initial group, will be discussed in subsequent chapters. Having published the experiences of the initial group in the 3-year interim report, this final report reflects total figures which include both the initial and replicate groups.

The Project Team has conferred constantly on significant data and extrapolated what we regard as meaningful data in an effort to accomplish a substantive understanding of our findings. All staff has shared in this rewarding effort and, within the concept of the project design, we have felt a certain gift of freedom and the uncertainty of expectation.

OLGA M. RILEY
Superior, Rehabilitation Research Project

Agencies and Agency Units Directly or Indirectly Participating in Handicapped Students Research Project

I. Voluntary Agencies

A. New York City Association for the Help of Retarded Children Training Center and Sheltered Workshop
B. Federation Employment and Guidance Service
C. Federation of the Handicapped

II. Official Agencies

A. New York City Board of Education
  1. Division of Child Welfare
    a. Bureau for Education of Physically Handicapped Children
    b. Bureau for Socially Maladjusted Children
    c. Bureau for Children with Retarded Mental Development
  2. Bureau of Educational Research[a]
  3. Bureau of Child Guidance
B. New York City Department of Health, Maternal and Child Health Services
  1. Bureau for Handicapped Children
  2. Bureau for School Health
C. State Education Department
  1. Division of Vocational Rehabilitation
  2. Division of Pupil Personnel Services
    a. Bureau of Guidance
    b. Bureau for Handicapped Children
    c. Bureau of Psychological Services
  3. Division of Law
  4. Division of Research

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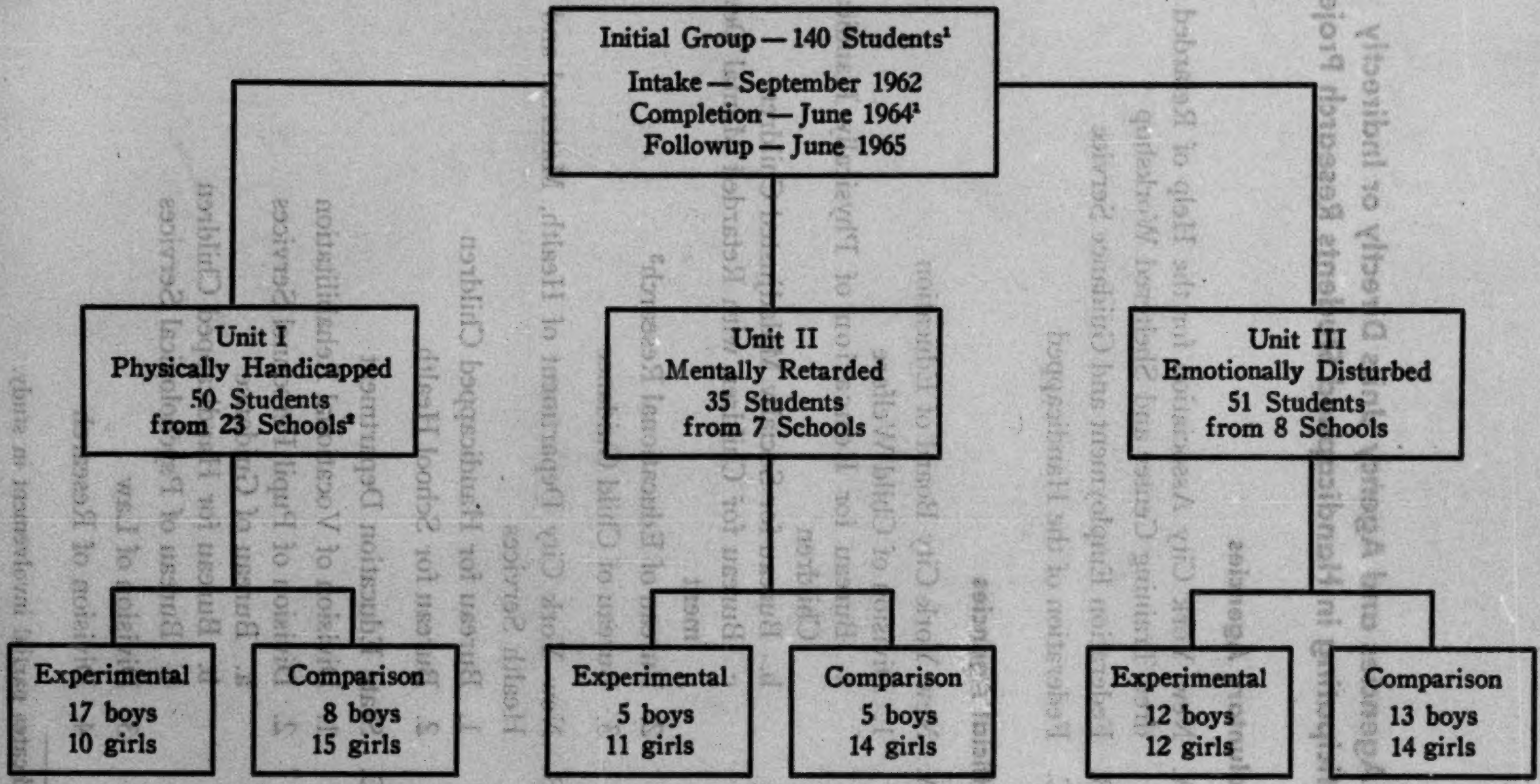
[a] Indicates partial involvement in study.

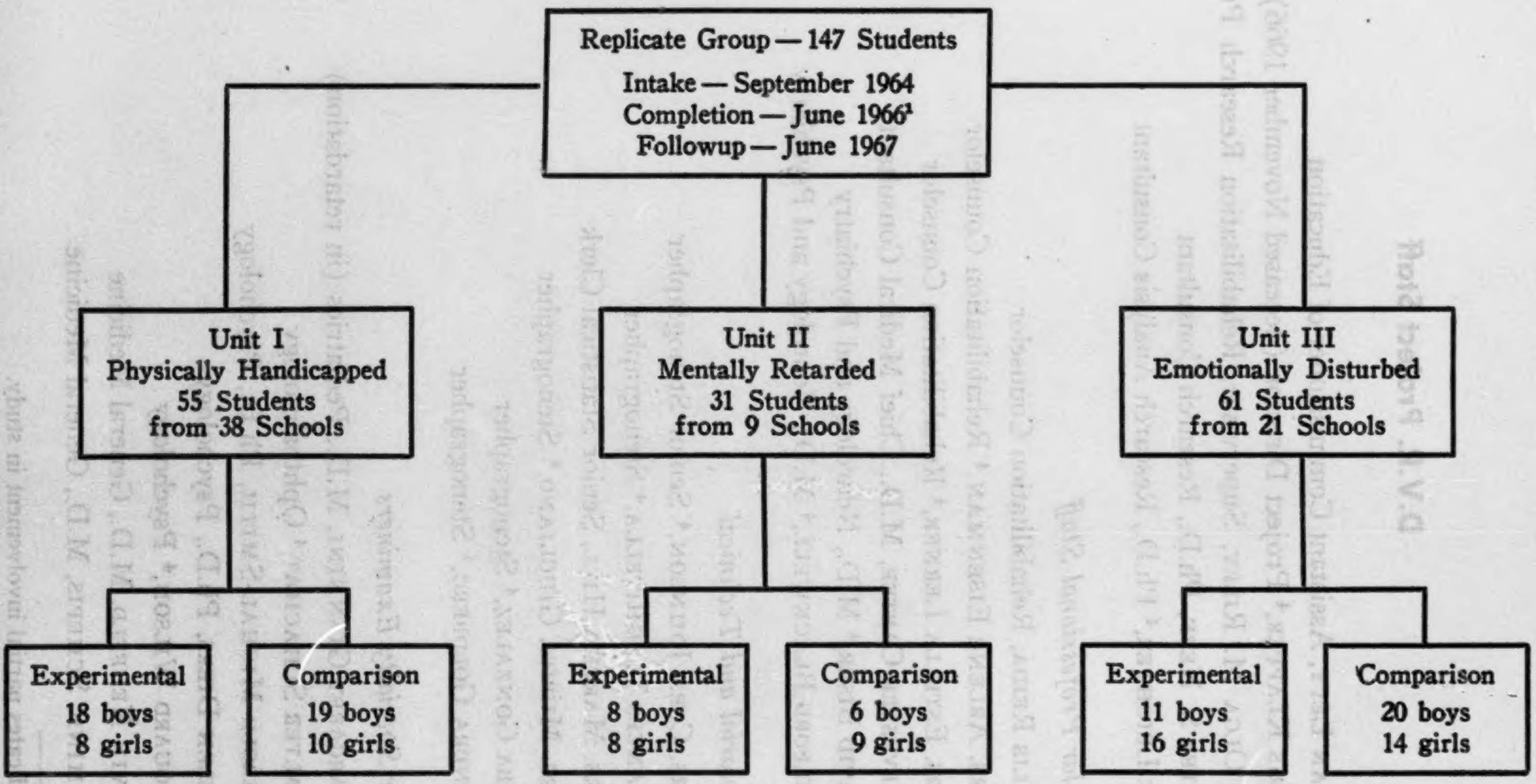
Graphic Description of HSRP Structure


Initial Group — 140 Students[1]
Intake — September 1962
Completion — June 1964[2]
Followup — June 1965
Unit I
Physically Handicapped
50 Students
from 23 Schools[2]
Unit II
Mentally Retarded
35 Students
from 7 Schools
Unit III
Emotionally Disturbed
51 Students
from 8 Schools
Experimental
17 boys
10 girls
Comparison
8 boys
15 girls
Experimental
5 boys
11 girls
Comparison
5 boys
14 girls
Experimental
12 boys
12 girls
Comparison
13 boys
14 girls

[1] Student-school distribution refers to date of completion.

[2] Four cases dropped after Appraisal.

Graphic Description of HSRP Structure


Replicate Group — 147 Students
Intake — September 1964
Completion — June 1966[1]
Followup — June 1967
Unit I
Physically Handicapped
55 Students
from 38 Schools
Unit II
Mentally Retarded
31 Students
from 9 Schools
Unit III
Emotionally Disturbed
61 Students
from 21 Schools
Experimental
18 boys
8 girls
Comparison
19 boys
10 girls
Experimental
8 boys
8 girls
Comparison
6 boys
9 girls
Experimental
11 boys
16 girls
Comparison
20 boys
14 girls

[1] Student-school distribution refers to date of completion.

D.V.R. Project Staff

ADRIAN LEVY, Assistant Commissioner of Education
MORRIS KLAPPER,[4] Project Director (deceased November 1966)
MRS. OLGA M. RILEY, Supervisor, Rehabilitation Research Project
WALTER S. NEFF, Ph.D., Research Consultant
HOPE LEICHTER,[4] Ph.D., Research Analysis Consultant

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IRWIN NEUFELD, M.D., General Medicine
DOMINIC SCHEPIS, M.D., General Medicine

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[4] Indicates partial involvement in study.

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Significant Findings

Objectives of the Study

The study was designed to test the belief that severely handicapped children are comparatively "unready" to utilize vocational services at the time they leave school because (in comparison with normal children) they have not been exposed to a variety of prevocational work experience in their formative years. The overall plan involved the provision to the handicapped child of approximately 2 years of vocational counseling and sheltered work experience, during a period which was assumed to be just prior to leaving school, on the assumption that they would then be better prepared to profit from postschool vocational services.

Method

The study required the close collaboration of the New York City Board of Education, the New York State Division of Vocational Rehabilitation, and 3 private vocational agencies. The study sample comprised approximately 280 handicapped children, ranging in age from 14 to 17. The children were subdivided into three disability groupings (the physically disabled, the educable mentally retarded, the emotionally disturbed); each disability grouping was further divided into experimentals (Es) and comparisons (Cs). Although only Es received vocational service (on a 2-day per week schedule during 2 school years), all children were assessed at the start of the program and reassessed at its end. All children were followed up 12 months after service to the experimental group was completed. The research design included a replication feature, in that one-half of the sample was studied during the first 2 years of the project and the other half during the next 2 years.

Findings

1. The three disability groupings proved to be strikingly different in demographic and personal characteristics, in the nature of the presenting problems, in their school careers, and in outcomes. *Type* of handicap is likely to be an important differentiating determiner of behavior.

2. The *physically disabled* children, as a group, appeared to show more benefit from the provided services than did the other two groupings. Physically disabled Es were judged to have higher potential for employment at the close of service than were physically disabled Cs. However, since most of these children were still in school at the time of followup, their actual employability could not receive an adequate test.

3. The *mentally retarded* children appeared to show gains in socialization and interpersonal adjustment, but not necessarily in employability.

4. The *emotionally disturbed* children did not appear to show any significant benefits from the provided services, except that Es remained in school for a substantially longer period than did their comparisons. It should be noted that these children, as a group, were characterized by severe behavior problems rather than a high frequency of the classifiable emotional disorders.

5. The ethnic and socioeconomic status of the children (and of their families) were very important determiners of both progress and outcome. Prevocational service appears to be least effective when the handicapped child is also faced by all the manifold problems of the poverty subculture.

6. It is believed that prevocational services will be more effective if they are provided within the school system itself. In the present project, the desired integration between the child's educational and vocational programs could not be maintained and a desirable kind of joint remediation and mutual feedback broke down.

WALTER S. NEFF, PH.D.
Research Consultant

Handicapped Students Research Project

Final Report

Olga M. Riley, Supervisor, Rehabilitation Research Project

Walter S. Neff, Ph.D., Research Consultant

I. INTRODUCTION

Background

The development of rehabilitation services to the school age child was a natural outgrowth of society's effort to provide service during the school year by encouraging a cooperative endeavor within the many disciplines concerned with child welfare. Because in a large urban center there are many competent agencies in various disciplines providing services, rehabilitation services were previously available in the early years only after the student's graduation, his voluntary withdrawal, or dismissal from the school. However, during the past several years, a cooperative program was evolved primarily between the Board of Education's Bureau for the Education of the Physically Handicapped (BEPH) and the Division of Vocational Rehabilitation (DVR) to consider handicapped students' eligibility for service usually during the year prior to their seventeenth birthday or graduation whichever seemed more practical in the individual case. All substantial disabilities were considered and the citywide fabric of health services was involved at some point in a case review in order to secure medical histories, clinical opinions, and to implement followup services.

The Board of Education's Division of Child Welfare provided liaison services to facilitate casefinding and referrals while the Division of Vocational Rehabilitation provided counselor services for the disabled population in every high school in the greater New York area. The Department of Health, through its special services for handicapped children, has been a major factor in the early corrective, diagnostic, and followup care which made school attendance possible for many children who might otherwise have been on Home Instruction or in long term hospital custody. This point is emphasized in the Project Plan as follows:

> This Project has been planned because the Board of Education of the City of New York (as represented by the Division of Child Welfare), the Division of Vocational Rehabilitation of the New York State Department of Education, and the other public and voluntary agencies with which they have been associated so closely, strongly believe that their cooperative efforts can be conjoined to effectively help the severely handicapped. However, it is their belief that the severity of the handicaps of the subjects to be included in this study necessitates the early application of their efforts in order to make them effective.
>
> The institution of this Project in response to a felt need both within and without the school setting should be further considered from the point of view of its possible effects upon the teaching program for the severely handicapped and its administration. The provision of the proposed special services should open many possibilities to the educational administrator as well as to the rehabilitation counselor. An example has already been given of the effect of the health conservation #20 classes in bringing in the cerebrally palsied who previously were limited mainly to home instruction.

Concepts Leading to Research Study

During 1959, a New York City vocational high school accepted a class of handicapped children thus marking the first such class assigned to a vocational high school. It became immediately evident that the school personnel was not equipped to plan the most effective training for this group. Help was requested of the Division of Vocational Rehabilitation in student evaluation of vocational areas in order to consider more realistic planning. On this basis, a Health Conservation Project was agreed upon with a third service agency, with whom a contract was drawn, to process the evaluations on a demonstration basis. The most fruitful time for this procedure was thought to be sometime during the last year prior to expected high school entrance. These findings were used as a guide for the school counselor in high school placements for the students with a demonstrated potential for a given broad occupational area.

The Division of Vocational Rehabilitation, however, in considering a new and younger segment of the student population was faced with two primary considerations:

1. How early can a child accept vocational services most effectively?

2. Would DVR acceptance for service at an early age be administratively practical?

Since the Board of Education's Office of Special Education and Pupil Personnel Services is responsible for providing all educational services and the Department of Health provides adequate health services, our problem became one of closing the gap of occupational awareness and of attempting to evaluate the most beneficial point at which readiness might be stimulated.

The study orientation derived from the Project Plan is:

> In selecting the 14-16 year age group for special consideration in this proposed study, no claim is being made that the lower age limits of the continuing service program have been identified. The purpose set for this program has grown out of the extensive experience of the cooperating agencies. This experience indicates that, for the severely handicapped group which has been identified, the deprivations of these pupils are of such extent by the time they enter the usual rehabilitation process that they present a very limited prospect of successful adjustment and placement. This pessimistic outlook does increase the possibility of their becoming burdens upon the social welfare agencies. The participating agencies share the expectation that earlier attention to overcoming the deprivations of these students will significantly improve the proportions of the group entering the mainstream of vocational guidance and placement, and that many can be brought to varying stages of self-sufficiency. The alternative may well be that of remaining in a state of adult dependency upon either their families or the welfare agencies.
>
> The emphasis in the preceding statement has been upon deprivations rather than handicaps. It is the sense of the participating agencies that the needs of these pupils are expressed in only a fragmentary form by a medical, psychiatric or other administrative classification. The dominant element that has emerged from the exploratory stage of this study has been the recognition of each agency (whether primarily concerned with health, education, physical and vocational rehabilitation or psychiatric and psychological services) of the

necessity of interacting with the services of one or more of the other agencies in order to effectively perform its own specialized services. Each agency realizes that it is concerned with a client who is "whole" despite the subtractive connotation of "handicapped" which might exist in the mind of the layman. The needs of the handicapped differ in degree but not in kind from those of the nonhandicapped. Need-fulfillment is multiple rather than singular in nature for both normal and handicapped populations.

This project is oriented toward those needs which have been identified by the participating agencies during the period devoted to exploration of the problem. These needs have been derived by the agencies from their experience with the handicapped in their areas of special competence.

The original research design which was implemented during June 1962, states, "The early provision of such services, at age 14 or over, is planned in order to meet the needs for special educational and vocational guidance and other services of students who, with similar severe disabilities at a later age, might be unable to take maximal advantage of vocational rehabilitation services initiated as they approach termination of their school program. These multiple needs must be met by an integrated, rather than separated, program of services by public and voluntary agencies."

As stated in the interim 3-year report of this study, the community agencies had demonstrated through their referrals that severely disabled students who are about to leave school are ill prepared to undertake vocational responsibilities, and with such additional limiting conditions as educational, emotional, and psychosocial deficits they have been found to have a highly uncertain vocational potential.

In the process of planning specialized training for a study group to begin at the approximate age of 14, the concept of early planning toward vocational readiness was directed toward the possibility of future vocational success at the point of leaving school. Both the initial group (1962-64) and the replicate group (1964-66) utilizing the basic premise of emphasis on early vocational services were tested against five objectives:

1. To enhance the students' self-image and self-sufficiency
2. To overcome difficulties in peer relationships
3. To help parents' reality-perception of their children
4. To expand students' knowledge of the world of work
5. To help students develop specific, desirable work habits, vocational skills, and aptitudes

The overall ultimate objectives are to determine which activities in the Project's experience could be transferred and made part of the Board of Education's continuing educational curriculum and to consider new techniques in the DVR process for meeting the needs of these students with emphasis on areas relating to vocational adjustment. The research sample is represented by 140 students in the initial Study Group with a replicate group of 147 which was studied in the second Study Group. The total group comprises three major disability units: the physically handicapped, the mentally retarded, and the socially maladjusted (or presumed emotionally disturbed).

This Program developed into three separate and distinct studies because the lack of homogeneity in these groups and our discussion of findings has necessarily been separated into units. In the description of our findings, we have brought out the many limitations and the need for further research toward this problem's solution. The objectives of our project design were such that they prohibited our pursuance of very intriguing material some of which we incorporated in the appendix for subsequent research consideration.

Relevant Literature

Unit I — Physically Handicapped

The issue of evaluating available material on the physically handicapped child is compounded by the many studies done in special interest areas and concentrating on one type of disability. On the other hand, as pointed out by Laura J. Jordan, "the ever-present heterogeneity of the research samples attenuates the usefulness of the findings. When the pupils enrolled in a single class may range in ability from retardation to superiority, knowing hypothetical average IQ scores does little to help the teachers planning." This study clearly suggests that such heterogeneity makes the assessment of findings much more complicated. This point is also made in a criticism of Wrightstone, and others, who studied *The Child with Orthopedic Limitations.*[5] Jordan[6] criticises "the usefulness of continuing to report measures of central tendency for a classification so admittedly heterogeneous as the orthopedically handicapped. Where wide spans of age, grade, and ability are found within single educational units, and where the etiology of handicap is so diverse, clinical study of the individual would appear to be the only way of meeting his educational needs."

---

[5] J. W. Wrightstone, J. Justman, and Sue Moskowitz. Studies of Children With Physical Handicaps: II. "The child with orthopedic limitations." Bureau of Educational Research Publication No. 33, New York City Board of Education, 1954.

[6] Laura Jordan. Children with orthopedic handicaps and special health problems. Behavioral Research on Exceptional Children. Samuel A. Kirk, & Blume B. Weiner, *eds.* p. 258.

One study[7] related to the characteristics of crippled children in special education in the United States, and the following points were significant to our findings: 1. The cerebral palsied were rated the most difficult to care for and the most likely to show secondary handicaps. 2. Infections, cerebral palsy, cardiac, and undiagnosed conditions were categories most often reported. 3. As the majority of the program did not extend beyond the ninth grade, only 7 percent of the children were enrolled in secondary programs. (Sample included reports of 16,696 crippled children from 40 continental states and Hawaii.) 4. There was little vocational guidance reported for the crippled, possibly as a correlate of the small number of secondary programs.

Another additional study which was done more than 40 years ago showed a surprising relevance to our study. Fernald and Arlitt[8] pointed out particularly that one of the factors influencing test findings might well involve the home environment. This implication was based on tests given to nonhandicapped children from the same families who also demonstrated a low mean score. The findings may not have been representative of the handicapped children in general in view of the socioeconomic bias which was predominately middle class. The one study most pertinent to our program in concept and also supported by Health, Education and Welfare funds is an on-going program in Philadelphia.[9] The population (referred from 3 high schools with high dropout rates) was composed of 70 percent mentally retarded; the remaining number were classified as having a personality disorder or emotional handicap. Although group counseling sessions were structured for these separate categories, the outcome statistics were not reported separately so that relevance to our study is negated. By contrast, our sample, according to the project design, was selected by our staff from those children enrolled in the C.R.M.D. (Children with Retarded Mental Development) classes with a "mentally deficient" designation by means of standard testing procedures administered by the Bureau of Child Guidance; this limits the IQ distribution within the 50-75 range. Within this group, we requested only those designated as educable in this IQ range.

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[7] Romaine P. Mackie. Crippled children in American education. Teachers College. Columbia University Contributions to Education, No. 913. 1945.

[8] Mabel R. Fernald. & Ada H. Arlitt. A psychological study of a group of crippled children of various types: a preliminary report. School and Society. 1925. 21: 449-452.

[9] Project #RD 1884-P—Educational and vocational rehabilitation of disadvantaged handicapped youths.

There are volumes of studies on the specifically and generally disabled child from many viewpoints involving his development. We were, however, unable to find a parallel study for a more direct comparison to our findings.

Unit II — Mentally Retarded

Reports reviewed on research of the educable mentally retarded have goals of varying degrees around employment concepts. The most frequently utilized concept, and somewhat related, among those programs which we reviewed is the Work-Study group.

The most applicable studies to our program goals centered on those considering the influence of environmental factors on development and on educational methods, achievement, and pupil characteristics. Although done in an institutional setting, a British team[10] of investigators found that removal of retarded persons from an extremely impoverished environment may result in positive gains in intelligence test scores. Retardates coming to the institution from homes judged as the most inadequate showed the greatest gains in test scores as a result of the change in environment. Other reports supporting these findings to some degree were N. C. Kephart, "Influencing the Rate of Mental Growth in Retarded Children,"[11] and H. M. Skeels, "A Study of the Effects of Differential Stimulation on Mentally Retarded Children."[12]

The inability to measure precisely the various components of the environment was noted as a constant problem of outcome reliability. Thus, in our study, an attempt to measure environment on judgmental factors, demonstrated a need to design and define more precisely the categories which are used to evaluate such specifics as family structure, parent occupation, education, and income.

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[10] Clarke, Clarke, & Reiman. British Journal of Psychology. 1958. pp. 49, 144-157.

[11] Yearbook of the National Society for the Study of Education. 1940. 29: Pt. II.

[12] "A Follow-up report." American Journal of Mental Deficiency. 1941-42. 46: 340-350.

Special difficulty occurred in assessing the initial survey data because of the informants tendency to upgrade the actual facts.

There are many studies on the severely disorganized mental retardates and those institutionalized; however, these studies are not considered pertinent to our sample.

Unit III — Emotionally Disturbed

In reviewing available and relevant research efforts, we found no investigation which addressed itself directly to subjects in circumstances similar to those which we were studying. It was conjectured that for many reasons, the emotionally disturbed or socially maladjusted student might not be a dependable nor controllable group for comprehensive research efforts because they do not usually present themselves as stable nor very feasible research prospects.

This study seems to be unique. One study, which can be mentioned as having some slight relevance, studied an annual population of 20 brain injured and/or emotionally disturbed children (age 14-17) over a 3-year period. This sample required an intelligence level between 75-85, with a greater potential indicated through test findings. There are several differences in our sample which prevent a comparison. While our group had approximately the same age requirement, there were no requirements as to potential. The above mentioned study drew its sample from predominately middle class families in a rural to suburban community, while our sample was predominately from lower income families who were in the majority of cases, housed in the ghetto. It is not useful, therefore, to attempt a comparison of these studies. Studies done while subjects were in custodial care (i.e. probation or other agency jurisdiction) were even less comparable because of differences in the basic variables of freedom versus restricted freedom. Therefore, no attempt is being made to compare our findings with those done in institutional settings. It is, therefore, important to note that research on this specific group was completed in its environmental milieu of a low socioeconomic urban group presenting all of the many problems which are frustrating to research. We suspect that these problems distorted as well as limited some of the possible outcomes.

Further, a study of relevant material on the severely emotionally disturbed is not comparable as our subjects represent problems of character disorder manifested by behavior symptoms which have been influenced by the environment.

Behavior considered delinquent in one community or setting may not be so considered in another. The enforcement of laws and disposition of apprehended offenders is less than uniform even for different areas of the same municipality. Studies have shown that children from families of lower socioeconomic status are more likely to be arrested, convicted, and institutionalized for a given offense than are children of middle or upper class families. This lack of uniformity introduces biases. There are many studies in outcomes which we have included in the appendices (such as teenage pregnancy, incarceration, school dropouts) but these were not our immediate focus and such studies were reviewed but not herein reported. (Appendix F-J) Therefore, studies primarily concerned with the clinically diagnosed severely neurotic, or severely emotionally disabled were not comparable to the subjects in our study who were more clearly defined as socially maladjusted rather than severely emotionally disturbed.

Summary of Research Setting

A. The Research Design

The project design evolved from the original aims of the research proposal, the problems of casefinding that had been encountered in the public schools, and the characteristics of the service-providing voluntary agencies. As the design was modified and developed during the early part of the first project year, it incorporated the following chief features:

1. Composition of Sample

Four distinct categories of handicapped students were to be studied: the Physically Disabled; the severe Cerebral Palsied (later these two were combined into a single Unit I); the Educable Mentally Retarded (Unit II); and the "Emotionally Disturbed" or Socially Maladjusted (Unit III). The first Unit was established from pupils in the Health Conservation classes of the public schools who met certain criteria; the second Unit was drawn from pupils attending the C.R.M.D. classes (Children with Retarded Mental Development); the third Unit was obtained from students assigned to the "600" schools created by the Board of Education for "Socially Maladjusted" students. Since each Unit was made up of a distinct category of the handicapped, and since each Unit was served by a separate voluntary agency, the feeling was that we were dealing with three separate studies, rather than a single research unit. Therefore, all subsequent data was to be analyzed on a Unit basis.

2. Age of Sample

The pupils who entered the project were to be children who had reached their 14th birthday, but had not yet passed their 16th birthday.

3. Sex

Each Unit was to include boys and girls in approximately equal numbers, for both Experimentals and Comparisons.

4. Sample Subdivisions: Experimentals and Comparisons

Each Unit was to be subdivided into approximately equal numbers of Experimentals (Es) and Comparisons (Cs), matched as subgroups for age, sex, nature of handicap, IQ and school achievement.

5. Initial Appraisal

The basic plan of the study included a multiphased initial appraisal for both Es and Cs within each Unit during a 3-month period of the first study year; vocational and social training 2 days a week, for a period of approximately 15 months for Es only; and a reappraisal for both Es and Cs during a 2-month period; all Es and Cs were to receive an intensive followup interview, covering all aspects of personal, familial, school, and vocational progress. The components of the initial appraisal, to be repeated at reappraisal, including the following:

a. An intensive intake interview by a DVR counselor, supplemented by interviews with family and a home visit; information sought included present school performance, educational and vocational aspirations, socioeconomic data, attitudes and expectations

b. A medical and/or psychiatric examination, with provisions for special examinations if required

c. Psychological testing, including both intellectual and emotional characteristics

d. School achievement, as measured by standard tests of verbal and numerical achievement

e. A vocational evaluation which involved 10 to 15 full days of vocational observation in a *vocational agency,* during which the student was confronted with a range of work tasks in a workshop setting, and was measured by several objective vocational instruments to determine the extent of fine and gross skills and aptitudes.

6. Training (Appendices E-1, E-2, E-3)

At the conclusion of the initial appraisal, Es continued with the service agency and received a variety of vocational and social services designed to improve their readiness and potential for employment. The training program was incorporated in the school day. This service continued for approximately 3 school semesters. Cs received no such services during the same period, except for their schooling.

In conjunction with the vocational training program at the rehabilitation agency, both the school teacher and DVR counselor played an active and continuing role. Teachers' role differed in different units, based upon the needs of the group at any given time. These varied from different forms of remediation, to application of vocational problems in the classroom (measuring distance, interpreting instructions, etc.), to enforcing discipline, planning, and/or participation in trips to industry. The DVR counselor was the liaison and catalyst responsible for meshing all participating units, and assuring clients' involvement and follow through on all phases of the program (e.g. case selection, review of work assignments, problems of discipline and attendance, relevant contacts with family, arranging necessary medical services, and conducting regular, periodic interagency staff conferences).

7. Reappraisal

At the conclusion of the training period, both Es and Cs were reappraised in the same 5 areas in which initial appraisal had taken place.

8. Followup

Twelve months after the end of the reappraisal, both Es and Cs were sought out for an individual followup interview and assessed in a number of areas of personal, social, educational, and vocational adjustment. (Followup Interview Schedule, Appendix A)

9. Research Instruments

A number of research instruments were devised to supply some of the quantitative data intrinsic to the Study. These were multi-item rating scales (Appendix B), which were to be used by the various professionals involved with each Unit. There were 5 such scales: the Psychiatrist's Scale, the Psychologist's Scale, the Counselor Scale, the Teacher's Scale and the Vocational Scale. The objective was to provide means for comparing the various appraisals of status and progress which were required by the separate phases of the study. (Appendix K)

In addition to these evaluation scales, the Followup Schedule included a number of scaled items.

B. Screening and Casefinding (Unit I — Physically Disabled, Unit II — Mentally Retarded, Unit III — Emotionally Disabled/ Socially Maladjusted).

1. Project Plan as Originally Outlined in Proposal

In the original protocol for the study, plans were drawn to "maintain the experimental demonstration samples as four class groupings intact within their school settings. The size of the samples will correspond to existing practices of class size in the schools. (Supporting Table 1)

The project design stated that "Although data for the current year (1960-61) are not available as yet, the trend of decreasing size of these special classes will undoubtedly continue. In order to conform to current practice, the demonstration experimental class groups will be maintained with a register of 12 to 15 students."

Experimental and Comparison group schools were to be selected under the supervision of the Project Director on the basis of the representativeness of the handicap distribution within their special classes, and of the socioeconomic status of the school as determined by the Board of Education. If the registers of handicapped pupils within the selected schools were adequate to provide sufficient numbers for both Experimental and Comparison populations, both groups would be allocated to the same school to control school effects. If frequencies are sufficient to provide only one class of 12 to 15 pupils, the Experimental and Comparison groups would be drawn from 2 schools serving the same handicap classification, and showing comparable handicap distribution and socioeconomic status. The project design further stipulated that the entire study universe could be defined as all those boys and girls who came within the four handicap classifications and who were of age 14 at the time of initiation of the Project. A random selection of subjects was planned to be made within each handicap group, with equal numbers of boys and girls assigned to the Experimental and Comparison groups.

The total size of the Experimental group at any point in the course of the study ranged between 48 and 60 subjects. A grand total of 192 to 240 students was to be included in all the Experimental and Comparison groups.

2. Modifications in Original Project Plan

The project plan outlined when the protocol was first submitted in 1960, had to undergo some modification when the Project finally got under way in the Summer of 1962; some of the changes involved case selection procedures in Health Conservation classes.

Although the class sizes were accurately depicted, no single school could provide anywhere near a complete Experimental or Comparison sample of 12 to 15 students with severe disability in the appropriate age group. Consequently, instead of extracting our study sample from approximately 4 schools (for both the initial and the replicate groups) as originally visualized, we found it necessary to review material on over 900 candidates of the target population who were scattered in more than 50 schools in 4 boroughs of New York City. With this expanded casefinding experience and the ultimate distribution of our approved study sample among a total of 156 separate classes, the scope of our administrative and staff responsibilities was increased enormously. Our total sample of 287 in both groups was selected from 38 schools as compared to the ideal of 6 schools. (Supporting Table 2C)

The most difficult of the three groups to locate was the physically handicapped. Students in HC classes in New York City public schools, for the most part, display mild to moderate disabilities and do not fall into the category of severe disability, as do the severe cerebral palsies and related neuromuscular conditions. We were faced with the necessity of weeding out scores of students with acute ailments, such as a variety of fractures, malnutrition, undefined orthopedic disability, minimal congenital anomalies, vague diagnoses of heart disease, and so forth—conditions which in our judgment did not represent serious problems for future vocational and occupational adjustment. The mentally retarded and so-called emotionally disturbed were much more easily obtained in the special schools and classes which have been set up for their particular disabilities.

The original planned study sample of 120 was raised to 140, and the replicate group to 147, upon recommendation of the Project Coordinating Committee which thought that a substantial turnover would result from frequent dropouts in the "Emotionally Disturbed" group. This category was, therefore, increased to assure the survival of a group amenable to research evaluation at the end of the Project period since it was envisaged that there would be some loss of the population.

A further modification occurred during the screening of the cerebral palsied group and the physically handicapped subjects. It became apparent that the most difficult group to find, meeting our criteria, was the 30 severely handicapped cerebral palsied who were in a special class for the most severely disabled. The design calling for a well-defined schedule with set periods of service was exceedingly weakened, with only 9 candidates identified by early November. It was, therefore, decided not to handle the HC 20 students as a separate study unit, but to include them in an expanded HC (physically handicapped) unit. This was made possible through the usual cooperation of the Federation of the Handicapped, which made the agency readjustments necessary to serve a larger unit than originally planned.

Other related problems which complicated the intake process resulted from meager or misleading referral data, such as vague medical diagnoses, uncertain intellectual status, and no existing psychiatric evaluation of the "Emotionally Disturbed" group. Also, problems of personal care had to be considered for the physically handicapped group, such as transportation, feeding, incontinence, and others.

Other factors which had an effect upon case selection had to do with such areas as expression of parental cooperation, student interest (admission was voluntary), interest of the school (especially the principal), problems of travel (for physically handicapped) from home to the rehabilitation center.

One further unfortunate result occurred from the distribution of the study sample among so many schools, especially the 109 physically handicapped experimental students who came from 28 different schools and were finally dispersed to 62 locations. It was considered totally impractical to shift these students into a single class in one school, or even 2 classes in 2 schools. (Later experience with the intraschool mobility of these students confirmed the wisdom of this decision.) This group, then, did not derive the benefits of a single class unit with the same teacher, nor could there be easily effected, through the teacher, the transference of experience from the rehabilitation center to the classroom. However, such transference was relatively feasible in the case of the mentally retarded students and the "600" school students who constituted workable class units and whose teachers were directly and regularly involved in the students' sheltered workshop program.

II. METHODOLOGY

General Considerations

In many respects, the project was characterized by a highly complex inner structure. Three broad categories of handicapped children were to be studied: the physically disabled, the mentally retarded, and the emotionally disturbed. It was assumed from the beginning that the problems of these different groupings were likely to be so different that the resultant data could not be merged. We are thus dealing here with 3 separate experimental programs, rather than 1 program. Secondly, the project included a replication feature; each of the experimental programs was repeated with a second group of children. The third complication arises from the manner in which project services were provided. Implementation of the project's objectives required the establishment and maintenance of an extremely close working relationship among several agencies and institutions: a State rehabilitation agency, a citywide system of public education, Department of Health facilities, and 3 private social agencies. The research was conceived from the beginning as a collaborative enterprise, in which the participants played sharply different roles. Since the research design reflected these different roles and responsibilities, it is necessary to describe how the participants functioned.

The New York State Division of Vocational Rehabilitation (DVR) operated as the coordinator of the entire project, was responsible for all data collection and data analysis and, in addition, supplied certain specified services. The chief service to be provided by DVR was to be vocational counseling and, where appropriate, job placement. An intensive program of psychological testing and medical evaluations was arranged by the State agency, which also was responsible for liaison between the schools and the social agencies. In practice, the DVR staff had to become involved with a great many other social institutions, especially in dealing with the problems of those project subjects who had severe behavior problems. There were many contacts with the courts, the police, and with the public welfare agencies. The DVR staff also was responsible for all followup studies and, by agreement, enrolled all of the project subjects as regular clients for its full range of rehabilitative services.

The second major participant was the New York City Board of Education. All of the subjects of the study were handicapped children who were attending various kinds of special classes under the jurisdiction of the Board's sections concerned with child welfare and special education. The physically handicapped subjects were obtained from the so-called Health Conservation classes of the public schools, which were organized to provide schooling for those children who are too disabled to participate in ordinary classroom work. The mentally retarded sample came from the Board's CRMD classes (Children with Retarded Mental Development). The emotionally disturbed subjects were selected from the "600" schools, which are administered by the Board's Bureau for Socially Maladjusted Children. According to the original project design, the school system was not merely to be a source of subjects but was to be an active participant in the study. Children were to enter the study in organized groups, *with their respective teachers,* who would then be in a position to integrate the child's vocational experience with the course of instruction. Should particular kinds of remedial instruction be required, the schools under an explicit agreement could then make them available. It was assumed that this kind of close cooperation could best be achieved if each of the groupings was made up of entire classes from a very small number of schools. In practice, this requirement proved to be impossible to implement for reasons which were quite beyond the control of the project.

The third participant in the project was a set of private workshop facilities. One of the most important features of the project involved the provision to the subjects of *actual work experience,* as a core program around which other vocational services could be organized. The explicit assumption here was that handicapped children are typically barred from the ordinary prevocational experience which normal children encounter as a matter of course. The general project hypothesis was that if its handicapped clients could be provided with actual work experience, they would develop appropriate work habits and a realistic conception of themselves as workers, which would benefit them when they arrived at an employable age. It was assumed that this sort of "learning by doing" could best be achieved in a sheltered workshop setting, where actual work could be stimulated under professional supervision. Three workshop facilities contracted to supply these essential services to the project clients, each taking responsibility for 1 of the 3 disability groupings. The Federation of the

Handicapped (FH) served the physically disabled children; the Association for the Help of Retarded Children (AHRC) took responsibility for the mentally retarded children of the study; the Federation Employment and Guidance Service (FEGS) developed a special program for the emotionally disturbed category. Each of the 3 agencies was to provide both evaluative and adjustive services in its respective sheltered workshop programs. (Appendix E-4) While the 3 participating agencies all had long experience in dealing with the handicapped, they differed considerably in their procedures and internal organization. This was an additional reason why the data on the 3 groups of handicapped children could not be merged, since it could not be assumed that the treatment programs would be identical.

In summary, therefore, the Project was concerned with the study of three broadly different categories of children, required the intensive collaboration of a number of separate agencies and social institutions, and was, in effect, conducted twice over a period of 5 years. There can be little doubt that it was an extremely ambitious undertaking. Its effectiveness was dependent upon the efficiency with which all of these elements could be coordinated. It is, perhaps, not surprising that the necessary degree of integration could not be consistently maintained over the entire lifetime of the project and that some essential components of this complex design could never really be obtained.

The Research Strategy

The overall objective of the study was to determine whether "the early application of coordinated vocational rehabilitation, educational, and guidance services for severely handicapped students" (quotation from the VRA grant application) would improve their "vocational readiness" at the time they were required to leave school and enter the labor force. The children who were to enter the project were to be beyond their 14th birthdays, but not past their 16th birthdays. Both boys and girls were to be included in approximately equal numbers. Each disability category was subdivided into Experimentals (Es) and Comparisons (Cs), who were matched as subgroups for age, sex, nature of handicap, IQ, and school achievement. Because of considerations related to travel, the size of the respective target populations, the necessity for parental agreement, and similar restrictions, it was expected that the sizes of each of the 6 subgroups would be from 20 to 30 children in each half of the study. Thus, the aim was to study approximately 300 children, with roughly 100 in each category, divided more or less equally into Experimentals and Comparisons, and including both sexes.

In Chapter I under "Summary of Research Setting," the project procedure is discussed in considerable detail. It may be ascertained from this description that *the chief independent variable of the study is an extended period of time during which the Experimental client received a planned set of vocational experiences and supportive services provided as a part-time activity while he continued to attend school.*

Research Instruments

It was anticipated that a considerable portion of the project's yield would be derived from the qualitative impressions of the various professionals who would be involved with these children. In order to render such information more amenable to analysis, a set of rating scales was devised. The various assessing professionals were required to summarize their impressions of the client by filling out these scales. Although separate scales were constructed for the DVR counselors, for the psychologists who tested the clients, for their public school teachers, for the social agency staffs, and for the consulting psychiatrists, these scales had numerous common items.

Several considerations prompted the development of these instruments. First, it could be determined to what degree there was agreement among the various professionals who were serving the children. Second, assuming some measure of agreement, client progress could be assessed in quantitative terms. It was also felt that it would be important to know if any relation existed between scale positions and ultimate employability. The following are illustrations of typical scale items:

17. To what degree does the child perceive himself as damaged:

...............Very much
...............Moderately so
...............Mildly so
...............Not at all

19. Future placeability; amount of effort required to place child on job at employable age, regardless of whether the job is kept:

...............Highly placeable; comparatively easy

...............Moderately placeable; position can be found but with some difficulty

...............Minimally placeable; considerable difficulty; includes sheltered employment

...............Unplaceable

20. Adjustability; if job can be found, will client be able to meet job demands and maintain employment?

...............High maintenance (will be employed at least 75 percent of the available time)

...............Moderate maintenance (25 to 74 percent)

...............Low maintenance (1 to 24 percent)

...............No maintenance (employed for only a day or two at a time)

Items were scored on a 4-point scale, with the positive pole assigned a score of "1" and the negative pole the score of "4." Since the scales constructed for the various professionals had unequal numbers of items, the raw scale-scores were systematically transformed to yield a range of from zero (the negative pole) to 75 points (the positive pole). Items were written to cover a number of behavioral areas of interest to the project: family attitudes to the handicapped child; characterization of the family as a psychosocial unit; the attitudes of the handicapped child to his family, to other children, and to himself; his occupational expectations; assessments as to vocational potential. (A copy of the full scale for the DVR Counselor may be found in Appendix B.) The scales for the other professionals were similar.

Each Experimental and Comparison child was scaled twice (at *Initial Appraisal* and again at *Reappraisal*) by 4 or 5 professionals. The resultant data were examined for both individual and group changes.

In appraising the utility of these rating scale instruments for this project, it should be kept in mind that they function simply to permit comparison of professional judgments. They should not be thought of as more objective or more dependable merely because they permit quantitative analysis. In effect, they represent an effort to *code* the subjective impressions of a professional. One of their serious limitations is that the research design of the project did not permit prior determination of their reliabilities. Many of the items, however, were adapted from the *Employability Scale* developed by the Chicago Jewish Vocational Service (Gellman, and others, 1962), which was undergone intensive analysis related to reliability and validity. We can thus impute *some* reliability to these research instruments, but we have been unable to make any kind of precise measurement. The safest procedure would be to regard them simply as descriptive statements made by staff, which include an indeterminate amount of error. Because of our reservations about the dependability of the total scale scores, we have generally compared staff assessments only on those items which recurred in all of the scales.

In addition to this set of standardized rating scales, the project also devised a carefully structured schedule for the followup interviews. (Appendix A) A number of the items of this schedule were scalable, but no effort was made to secure a total score. In the followup interviews, information was sought under 7 headings: employment status, if not in school, including job aspirations, job-seeking activities, further training and the like; present family adjustment; relations to peers, including recreational activities; adjustment to and progress in school; general health and social adjustment; the reactions of the client to the project; the interviewers' impressions of the client's current employability.

The Outcome Criteria

The overall aim of the project was to determine whether the "vocational readiness" of handicapped school children would be positively influenced by the early application of vocational services. The dimensions of "vocational readiness" are not a matter of common knowledge and are far from easy to define. Since the project was designed not only to provide a new kind of service but also to study its effectiveness, considerable thought had to be given to the selection of adequate criteria. The most desirable criterion of success would be, of course, the increased ability of the client to secure and maintain gainful employment. We can conceptualize this kind of outcome as a suitably "hard" criterion of program effectiveness. However, the special nature of the present project made it uncertain as to whether such data would be forthcoming. The target population consisted of children who were, on the average, 14-15 years old when they entered the project. The period of direct service was to take place over a time span of some 20 months, which was then to be followed by a 12-month period of followup. Given this schedule, the subjects would be some-where between 17 and 18 years old at the time they were seen in followup. It was assumed that substantial numbers of subjects would be ready to leave school at the conclusion of the direct-service phase of the project and that the 12-month followup period would reflect their experiences in trying to enter the labor force. The project investigators were aware, however, that substantial numbers of the study sample might still be in school at the time of followup or had been available for employment only for a small portion of the total followup period. It was for this reason, that the research design also provided for what might be called "soft" criteria. The latter were to be derived from the ratings made by various staff during *Reappraisal* and by those items of the followup schedule that dealt with school experiences and with personal and social adjustment.

The outcome criteria of the project, therefore, are two distinct types, to which we can impute different degrees of confidence. If a given subject has been out of school for a substantial portion of the followup period, and thus can be assumed to be "in the labor force," the basic criteria of success or failure must reflect the statistics of his actual employment, or lack of it. If a subject is still in school at followup, or has been out of school for an insignificant portion of the followup period, the project had to rely on more impressionistic and subjective judgments of his vocation progress.

It must be emphasized that the project had no control over the age when its subjects left school. This was entirely a matter that was decided by the individual child, the family, and the school authorities. Unlike research on adults, there is no way of guaranteeing in the present study that a lapsed time of one year represents 12 months of expericene vis-a-vis the actual labor market. To delay followup until a year after each child had *left school* would not only have been entirely impractical but introduces another source of variance: the differing amounts of time since the direct-service phase had ended. The research investigators were, therefore, confronted with a choice among doubtful alternatives. They decided to conduct followup at a fixed period for all subjects. As the program evolved, a very large proportion of the children, especially those in certain physical disability categories, were still in school at the time followup was undertaken, and thus the evaluative criteria of the study were largely confined to impressionistic and judgmental data.

The Replication Procedure

The project design required that 2 successive groups of handicapped children were to be served and studied. In the language of the project, these were designated as Study Group I (Initial Group) and Study Group II (Replicate Group). Two purposes were to be served by this procedure. First, the numbers of subjects in each subgroups were thereby doubled in size. Second, the results on Study Group II could serve as a check on the results of Study Group I. Our *analytic strategy* was first to examine the data of each Study Group separately, and then to merge them where no significant differences were detectable.

Screening and Casefinding

Ultimately, the physically handicapped unit of Study Group I (Initial Group) was assembled from 14 schools, as was the unit of Study Group II (Replicate Group). The obvious result of this wide dispersion was that it became very difficult to implement those features of the research design which called for the integration of vocational and educational experiences.

In the cases of the retarded and the emotionally disturbed samples, the problems faced were not initial dispersion of source but rather *demographic* problems. In each case, the required numbers of children were found in 3 schools for Study Group I (Initial Group) and in 2 schools for Study Group II (Replicate Group). Our study samples in these two disabilities categories turned out to be essentially made up of Negro or Puerto Rican children, which reflected the population of the schools from which these samples were taken. It is thus something of a misnomer to say that the project was studying mentally retarded and emotionally disturbed children, if it is assumed that these diagnostic terms describe the entire scope of their handicaps. Their problems were rendered far more complex by the fact they were, as groups, members of poverty-stricken families, who faced the additional difficulties of minority group status.

The relations between the project and the schools tended to break down completely during the second service year of each study. This was because a great many of the subjects entered the project at a point where they were about to leave grade school and enter high school or junior high schools. Table 2c shows the sources of subjects at Intake and Reappraisal. It will be seen, for example, that the 55 physically handicapped children, who were recruited from 14 schools for the Initial Group, had spread out to 23 schools by the second service year. Also, the relative success of the project in initially recruiting its mentally retarded and emotionally disturbed subjects from a small number of schools, was diminished by the scattering of children during the second service years. This situation became more pronounced in the Replicate Group, because of adoption by the Board of Education of policies in the direction of a more decentralized administration of the schools. The general result was that the project was unable to maintain any meaningful relationship between the vocational services received by the child and his actual school curriculum. (Supporting Table 1)

Project Nomenclature

To avoid constant repetition of awkward disability titles, the physically handicapped children are hereinafter referred to as *Unit I,* the mentally retarded as *Unit II,* the emotionally disturbed as *Unit III.* Similarly, the initial set of children served are described as *Study Group I,* the replication group as *Study Group II.* The children in Experimental Groups are called *Es;* those in the Comparison Groups are called *Cs.*

Duration of Project

Including the time for preparation of the Final Report, the project lasted 6 years, from July 1962, through June 1968. To summarize the sequence of procedure, the children of the *Initial Group* were screened and interviewed in September and October of 1962, and underwent *Initial Appraisal* during the following 3 months. The *Initial Group* Es then received vocational training during the remainder of the school year of 1962-63, and, after a summer lapse, continued their training until approximately the end of the school term. Both Es and Cs were then reappraised, concurrent to the service period during the remaining months of the school year and were recaptured for followup interviews in June and July of 1965. The children of the *Replicate Group* entered the program in the Fall of 1964, and followed an identical time sequence; they were seen in followup in June and July of 1967.

III. RESULTS — UNIT I — PHYSICALLY DISABLED

Evaluation of Quantitative Findings

The project data which were amenable to statistical treatment were derived from three sources: 1. psychological test scores at *Initial Appraisal* and at *Reappraisal;* 2. rating scale data at *Initial Appraisal* and at *Reappraisal;* 3. followup data obtained through a structured interview. The supportive tables are presented in the Appendix.

Client Characteristics

Clients in this group averaged 14 years and 7 months in age at Initial Appraisal, with a range from 14 years and no months, to 16 years and 4 months. Slightly more than 70 percent had not yet reached their 15th birthday and only 6 percent were over 15 years old. The 50 clients of the Initial Study Group were evenly divided as to sex, but there were twice as many boys in the Replicate Group as there were girls. In the combined group, approximately 60 percent were males.

It should be noted that the group was rather heterogeneous with respect to the nature of the disability, which in spite of this difference, was the basis for their assignment to the Health Conservation classes. One-third were medically diagnosed as cerebral palsied and an additional 16 demonstrated medical evidence of other types of brain damage. Thus, about half the group had some type of central nervous system defect. The remainder exhibited a wide range of chronic illnesses and impairments, which were sufficiently severe to keep them from being included in the normal schoolroom structure. This group was assigned to Health Conservation classes based on medical screening and recommendation.

The 2 Study Groups were finally drawn from a total of 28 health conservation classes. The disability distribution for this group includes the following breakdown:

Disability Breakdown
Initial & Replicate Groups

Arthrogryposis	3
Asthma	3

Brain Injury	16
Cardiac	3
Cerebral Palsy	35
Epilepsy	2
Muscular Dystrophy	7
Nephrosis	1
Postpolio	6
Scoliosis	3
Sickle Cell Anemia	3
Spina Bifida	4
Multiple Disorders	19
Total	105

The group of students represented in this unit seemed the most representative of the target population in its disability distribution, ethnicity, and socioeconomic levels. The study sample was planned by research design to include "chronic medical, cardiac and miscellaneous disorders." The IQ range was stated as "from 75 to an unrestricted upper limit" except for the latter group cerebral palsy and neuromuscular "which would be predominately of those with 75 and above with a few cases slightly below 75."

The socioeconomic levels and family emotional tone were more in line with the normal population and, since Negro and Puerto Rican children comprised 45 percent of the school population in 1964-65,[18] the ethnic distribution is also reasonably representative with 58.1 percent white students and 41.9 percent nonwhite. With a generally stable family background, the majority tended to be middle class in socioeconomic status and aspiration levels. The father was the chief bread winner in almost all cases (in only 4 of 95 cases of those reported to be employed, was the mother the principal wage earner). Approximately one-third of the fathers reported managerial or white collar occupations, another one-third were stable blue collar workers, and 23 percent were in various service occupations. Nine of the families were dependent upon public welfare; in 6 of these cases, the family lacked an adult, male wage earner. (Supporting Table 1)

This group was the least mature and only a few had been trained to travel. Since the training facility was within easy access from major areas of the City, scheduling of students was facilitated without problems. This was a crucial consideration for this group, most of whom had to be transported to the workshop from their homes in Brooklyn, Manhattan, Queens and the Bronx, and outlying areas. Learning the methods of travel on public transportation in a large urban area is essential to a vocationally oriented training program. During each medical evaluation, it was ascertained whether or not travel could be considered a feasible objective. With medical approval, training was initiated if parental permission could be obtained. This was possible on all medically feasible cases with the exception of four children whose parents were unable to accept the concept of independent travel. Parental group meetings for Experimental students were arranged by the facility and considered highly successful. Experimental and Comparison students did not differ significantly on any of these demographic characteristics.

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[18] Marilyn Gittell. Participants and participation. (A Monograph) Published by the Center for Urban Education. 33 W. 42d St., N.Y.

The Testing Data

Prior to a discussion on the contrast between Experimentals and Comparisons, it is worthy of note that this entire group of children with physical disabilities displays rather marked educational retardation and appears on the average, to be characterized by less than normal intellectual development. They are, as a group, three to four years behind their physically normal school peers in reading and arithmetic skills and are almost a full standard deviation below the conventional IQ mean of 100. Interestingly enough, their verbal IQ scores are not substantially higher than their performance scores. The measured rates of mental development and ability may be related to the physical disabilities in conjunction with interpersonal and environmental influences. The WISC mean IQs and grade placement levels on two achievement tests for both Experimentals and Comparisons are charted in the Appendix. (Supporting Table 6C) The time interval between the Initial Appraisal and Reappraisal on each group was approximately 18 months. As groups, both Experimentals and Comparisons made fairly substantial gains in mean IQ over the 18 month period. Experimentals gained approximately 9 points in full scale IQ and Comparisons gained about 6 points. Recognizing the retest tendency of regression toward the mean of the standard population, no implication of significant change is intended.[14] The difference in points gained, however, between the Experimentals and Comparisons was not significant. Neither group showed very much improvement in reading and arithmetic when we consider that the retesting took place 18 months later. Despite the fact that almost all of the Physically Disabled children were in high school at the point of Reappraisal, they were demonstrating an average reading and arithmetic level at approximately the fifth grade.

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[14] Charts for the three disability groups showing changes in Psychological Scale Scores conclude this chapter.

The heterogeneity of both the Experimental and Comparison group might well be a factor in their low reading and arithmetic grade averages. The full scale intelligence scores for the Experimental group were distributed between 47-109 at Appraisal and 58-120 at Reappraisal. Since the medians fell at 78.7 and 86.5 at Appraisal and Reappraisal respectively, half or close to half of this group was functioning at the mentally retarded level. A wide diversity existed also in the range of reading and arithmetic scores. The reading range at Appraisal was 1.2-10.4 and at Reappraisal 2.0-12.4. Their arithmetic range at Appraisal was 1.7-9.3 and at Reappraisal 2.5-11.0. The same results held true for the Comparison group where the IQ ranged from 46-100 at Appraisal and 50-106 at Reappraisal. The medians fell at 76.2 and 83.0 at Appraisal and Reappraisal. Their reading range was 0.5-12.0 at Appraisal and at Reappraisal 0.7-14.6. Their arithmetic range was 1.8-11.8 at Appraisal and 0.8-10.6 at Reappraisal.

One of the problems in evaluating a group with such a range of physical and mental problems is the absence of any common method which could be applied to a group with such diversity in abilities, skills, and potential.

The Rating Scale Data

An examination of the rating scales by professionals shows the changes from Initial Appraisal to Reappraisal. (Tables 7 through 11) Tables 7 and 8 present differences in total scales scores, whereas Tables 9, 10, and 11 focus on items of particular significance that recurred in all of the scales. While very few of the comparative ratings of Experimentals and Comparisons reach the level of statistical significance, most of the Comparisons tend to differ in direction. The *Experimental group is generally found to improve slightly and the Comparison group is related as slightly less employable.* This difference in direction is most marked in Table 10, in which all 4 professionals perceive the Experimental clients as better able to maintain a job, assuming that they can be successfully placed. The workshop staff member was generally the most positive about the clients and the teacher the most noncommittal. The psychologist who tested the clients tended to rate the Experimentals as showing more improvement than the Comparisons, while the DVR counselor was less certain. A quite unexpected finding was that the workshop saw the Comparisons as making greater movement toward occupational realism than the Experimentals, although both groups improved in the realism of their occupational expectations.

The Followup Data

Followup interviews on both Initial and Replicate Groups were conducted with 100 of the 105 clients who made up the unit for the physically disabled, (3 were deceased during the process of the program) which represents an unusually high percentage of recapture as compared to other followup studies. At the time these subjects were interviewed for followup, 90 percent were still in school with only 5 Experimentals and 4 Comparisons having attempted to leave school and enter the labor force. Of the 5 Experimentals who had left school, 1 had found employment and 3 were looking for work having rejected further training offered by the DVR counselor; of the 4 Comparison school dropouts, none had found a job and only 1 was seeking employment. Of the 90 percent, both groups (Experimental and Comparison) indicated an expectation to continue their education after high school. A few more Comparisons than Experimentals expected to go to college and a few more Experimentals than Comparisons expected to continue in some kind of business or technical school. A majority of both groups said that they were getting along well enough in school, although more Experimentals than Comparisons indicated they felt a need for some help with their schoolwork.

While only negligible data were available on out-of-school work experience, the followup interviewers reported that Experimentals appeared more strongly motivated for employment and more frequently expressed interest in specific kinds of vocational training. The final item of the followup interview required the interviewer to make an overall estimate of the clients potential for stable employment. A significantly larger proportion of Experimentals were judged to have a better than fair potential for employment than those clients similarly rated in the Comparison group.

Research Consultation's Observations

Because almost all Unit I subjects remained in school during the entire life of the project, it is impossible to determine whether the vocational training offered to Experimentals has had any direct effect on their employability. It is also quite clear that the project had no differential effects on whatever is measured by tests of general intelligence and school achievement. The more subtle findings of the study have the disadvantage of being both impressionistic and difficult to interpret. There is some evidence that the various serving professionals believed the E clients to be better able to hold a job because of their agency experiences, but no one believes that they are any more readily placeable than they were before the study began. It also appears that the Es seemed more *interested* in both work and vocational training, but they also appeared to make less gain in vocational realism than their unserved counterparts. Early vocational training appears to have had some effect on attitudes toward work and interests in work, but whether the ultimate vocational adjustment of these children has been genuinely improved must remain an open question. The probable reasons for these indecisive findings will be discussed in a later chapter of this final report.

UNIT II — MENTALLY RETARDED

Evaluation of Quantitative Findings

The research design specified that this group should include "mentally retarded students classified as educable who are impeded by severe problems of a social or personal nature from making an adequate vocational adjustment . . . all those enrolled in these classes have been examined by the Bureau of Child Guidance and classified as mentally deficient. IQ distribution is limited to the 50-75 range, including all those classified as educable."

As in the findings for the Physically Handicapped group, the Initial and Replicate groups demonstrated no substantial differences thus making an adequate replication experience. For the purposes of this report, we shall pool all data from both groups while occasionally indicating minor differences. The sample sizes in the Initial group included 16 Experimentals and 15 Comparisons. The combined sample of Initial plus the Replicate group was 66 children divided into 32 Experimentals and 34 Comparisons.

Subsequent to a description of the pertinent sample characteristics, we are presenting an analysis of the three sources of quantitative data: 1) psychological test data at *Initial Appraisal* and at *Reappraisal;* 2) rating scale data at *Initial Appraisal* and *Reappraisal;* and, 3) followup data obtained through interviews conducted approximately 12 months after Reappraisal. Relevant tables are presented in the Appendix.

Client Characteristics

Selected characteristics of this sample are tabulated in Supporting Tables 13C and 14C. The mean age of these children was 15 years and 1 month at intake, with a range from 14 years and no months, to 16 years and 1 month. Slightly more than 50 percent had reached their fifteenth birthday, and 6 percent of the children had passed their sixteenth birthday. Girls outnumbered boys by 2 to 1 in the Initial group, but the two sexes were roughly equal in number in the Replicate group. In the combined groups, there were 66 children of whom 42 were girls.

All of the children were attending CRMD classes at the time they entered the program, and were retested by the Program Psychologist as a condition of entry. WISC Full Scale IQs ranged from a low of 42 to a high of 85. All students in the sample were below 79 with the exception of 3 percent, and slightly more than 70 percent had IQs below 69. The sample thus falls generally within the range of what is commonly called "educable mental retardation" as defined by performance on a standard test of intelligence. It should be emphasized, however, that the reported IQs may represent some measure of underestimation of the actual intellectual potential of these children. Almost all of those subjects in the mentally retarded group were Negro or Puerto Rican in ethnic origin (60 percent Spanish speaking, 26 percent Negro) who were immigrants to New York City. To an indeterminate extent, their low IQs may be a function of cultural and social deprivation. (Supporting Table 17C)

According to Heber (The Educable Mentally Retarded in Behavior Research on Exceptional Children) a substantial proportion of all educable mentally retarded children derives from adverse environmental circumstances and from families who are also retarded in intellectual development. Contrary to the family characteristics of the physically disabled group, the children in the mentally retarded group came from families of generally low economic status. A little less than two-thirds of this group were either entirely dependent upon public welfare or were employed in quite poorly paid service jobs. Of the entire sample, only 6 families reported white collar occupations and approximately one-third of the families lacked an adult male wage earner. These children can, therefore, be regarded as having multiple disadvantages since in addition to their educational and intellectual retardation, their entire life situation can best be described as marginal. Achievement of an adequate vocational adjustment means that it is necessary not only to overcome those difficulties posed by their mental limitations, but also the many additional barriers inherent to their poverty and minority group status.

The Testing Data

Several points merit comment with regard to the mean test scores for the Experimentals and the Comparisons. The intelligence tests, and two tests of school achievement, were individually administered at the point of Initial Appraisal and 18 months later at Reappraisal. (Supporting Table 17C) At the start of the program, the matched groups showed the typical testing characteristics of children classified as exhibiting mild to moderate mental retardation. Their mean IQs range about 60, with standard deviations of about half the size found in a normal sample. On the average, they read at about the third grade level and their arithmetic skills are about at the fourth grade level. It was also observed that both groups show average gains in IQ of about 10 points after a retest interval of approximately a year and a half, but their school achievement scores increased only minimally. A final point which emerged was that the experimental service program had no *differential* effects on test scores. Experimentals and Comparisons show about the same level of gain in IQ and differ only slightly in changes in school achievement test scores.

The Rating Scale Data

The professionals rated the groups at Appraisal and again at Reappraisal which was 18 months later. In evaluating these ratings, it is difficult to find any consistent pattern when we compare the findings on the Experimentals and Comparisons. (Supporting Tables 17C and 22C) In general, there is a tendency for the workshop staff member and the testing psychologist to be somewhat more positive about the progress of these children than either the DVR counselor or the school teachers. The workshop thought that the Experimentals were more readily placeable in employment at the close of the study than were the Comparisons, but the DVR counselor did not agree. Few of the reported differences between Experimentals and Comparisons were at the level of statistical significance. We are forced to conclude *either* that the vocational training offered to Experimentals made no difference in their vocational readiness and potential for employment or that the rating instruments utilized were relatively insensitive to such changes, assuming that they occurred.

Several factors of undetermined influence must be considered to reach a more definitive statement. One of these factors was the heterogeneity of the mentally retarded group which included both educable and trainable subjects. Although the design specified a population of educable mentally retardates, there was a mixture of these designations. One reason was the variance from school to school in the assessment of the designations "trainable" and "educable." Disparity exists also between experts in classifying retardates. Charney states that the trainable mentally retarded are those children who are ineligible for classes for the educable mentally retarded but who possess potentialities for training in self-care, social adjustment in the home or neighborhood, and economic usefulness in the home or in a sheltered environment. Miss Katherine Lynch, Director of the Bureau for Children with Retarded Mental Development states more specifically that

> pupils are grouped on the basis of intellectual, physical, social and emotional development into three tracks, and within each track they are further classified on the basis of chronological age and social maturity:
>
> *Track 1* is for the educable child whose abilities indicate that he is capable of profiting from carefully and appropriately selected vocational experiences. The goal for this group is ultimate employment in competitive industry in unskilled and semi-skilled jobs.
>
> *Track 2* is for the educable child whose abilities indicate that, while he may never become competitively employable on a permanent basis, he does have the potential for marginal, part-time, or seasonable employment, or for partial self-support through sheltered employment.
>
> *Track 3* is for the trainable child who does not demonstrate a potential for complete or partial self-support.[15]

It developed after analysis that our sample represented to some degree all three tracks. Having relied upon the judgment of the referral personnel in their selection of educable students, in compliance with the research design, there was no attempt by the program staff to assess the track level of the sample except in a subsequent observation that this group could be divided into all three of the above tracks. The problem of heterogeneity may not be an important influence in accordance with Dr. Bluma Weiner who discusses the purpose of client assessment in another but relevant context. She states that "current usage of the concepts 'educable' and 'trainable' as they are applied to mentally retarded children is of limited value and doubtful defensibility."[16]

The rating scale could also have been affected by an unpredictable Counselor turnover since the same DVR counselor did not rate these students twice. The same problem obtained in the Workshop staff where the usual caseload population is one of more severe pathology so that the one consistent professional rater was the Psychologist.

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[15] Rehabilitation Service Series #507. U. S. Department of Health, Education & Welfare.

[16] "A new outlook on assessment." New Outlook for the Blind. 3/67, Vol. 61, #3.

The Followup Data

Followup interviews were successfully conducted with 61 of the 66 children in this unit, one year after conclusion of Reappraisal. (One boy was deceased.) Twenty-nine of 32 Experimentals were seen for followup (Combining the Initial and Replicate groups), and 32 of the 34 Comparisons. There is no indication in the case records that those remaining children differed in any special ways from those interviewed.

Roughly 60 percent of this group were still attending school at the time of followup. The Comparison group displayed a somewhat greater school dropout rate than the Experimentals. Twenty of 29 Experimentals were in school as compared to only 16 of 32 Comparisons. Thus, it is not known whether participation in the program was a crucial variable affecting school dropout behavior.

The subgroups of the Experimentals and Comparisons are too small to permit a statistical analysis of dropout patterns so these findings are reported simply in terms of head counts. Of the 9 Experimentals who were "in the labor force," 2 were currently employed in the open labor market, 3 were in some form of sheltered employment, and 4 were currently employed. Only 1 Experimental had not been employed at the point of followup. Of 16 Comparisons: 8 had never worked, 5 were currently employed, 3 were currently unemployed and 1 was in sheltered employment. The net impression, as groups, is that those Experimentals who were available for employment had been somewhat more active in some kind of work, than had the Comparisons.

Experimentals and Comparisons differed in several other respects at followup. The Experimentals were generally more socially active than the Comparisons, lived less solitary lives, had more friends of both sexes, and engaged in more out of home social activities. The Experimentals also impressed the followup interviewers as being more strongly motivated to secure some kind of vocational training, as an aid to employment. Both groups were judged to be strongly motivated to find jobs and were appraised as having about the same "fair" potential for placement. An unexpected finding was that the Experimentals were judged to be somewhat more unrealistic about their futures than were Comparisons, and the latter appeared somewhat better groomed in appearance than the former. Few of the observed differences were statistically significant.

Research Consultant's Observations

An unexpected finding of the study was that 57 percent of the mentally retarded children remained in school well beyond the legal school-leaving age. In large part, this fact must reflect changes in the educational and administrative policies of the school system, since it is clear that these children are making only very minimal gains in school achievement. Whatever the circumstances, the fact that more than half of the sample was still in school at the time of followup makes it difficult to study the effects of the project on "vocational readiness." While these children may be gaining little (except, perhaps, socially) from staying in school, their continued school attendance has the effect of keeping them out of the labor force. In future studies, it may be necessary to extend the period of special vocational services until the child is ready to leave school. An extension of vocational services will introduce another source of variance, since different children will be exposed to differing amounts of prevocational service.

The chief differences between Experimentals and Comparisons appeared to be in the sphere of social behavior, rather than in employability or in cognitive development. Whether the difference is an artifact or a real result is difficult to state with any confidence. It may well be the case, however, that the retarded and socially underprivileged youngster may make his best gains in socialization, rather than in the specifics of adaptation to work.

UNIT III — EMOTIONALLY DISTURBED

No substantial differences were found to differentiate the subjects in the Initial and Replicate groups of this unit so that the data from the two halves of the research were pooled. The two halves comprise the Initial Group which included 24 Experimentals and 27 Comparisons, while the comparable sample in the Replicate Group was 27 Experimentals and 34 Comparisons. The total size of the sample of emotionally disturbed children was 112 divided into 51 Experimentals and 61 Comparisons. (Tables altered to 111 because of one death.)

This combined group presents the greatest challenge in our evaluation of qualitative results. Many more questions have been raised than we are able to answer. The one constant factor of this group of students probably lies primarily in their inability to conform. One wonders whether the isolation to a "600" school assignment encourages their need to conform as a socially maladapting group and results in their being labeled as "stereotyped deviants." In our program, the initial reaction to authority and discipline was negative, but continued contact, counseling, and concern on the part of the counselor, softened this attitude in the majority of clients. The motivation to be an active participant in the program was substantiated in part by sampling the attendances. (Supporting Table 25C)

Evaluation of Quantitative Findings

It was decided to present certain selected characteristics of the study sample first, and then analyze the results of the entire investigation under three headings: 1) the psychological test data, comparing Appraisal with Reappraisal: 2) rating scale data on both Appraisal and Reappraisal; and 3) followup data obtained through interviews 12 months ofter Reappraisal. Tabular data are presented in the Appendix. This information is interlaced with the qualitative comment.

Client Characteristics

Summarization of some of the relevant features of these study subjects may be seen in Supporting Tables 24 through 27. These children were slightly older at the point of intake than those in the Mentally Retarded group, and were 7 to 8 months older than the Physically Handicapped group. The total Emotionally Disturbed sample averaged 15 years and 2 months at intake with a range of from 14-0 to almost 17 years. Sixty-seven percent of the group had reached or passed their 15th birthday and 6 percent of the children had passed their 16th birthday. In the total sample of 112 children, the number of boys and the number of girls was equal.

Median Ages at Intake
1962–64

Unit	*Initial Group* *Yr. Mo.*	*Replicate Group* *Yr. Mo.*
Physically Disabled	14.10	14.8
Mentally Retarded	15.3	14.8
Emotionally Disturbed	15.6	15.2

All of the children were attending classes at the so-called "600" schools as a condition of entry. The primary reason for their transfer to the "600" school was a "severe behavior problem," which their schools of origin could not or would tolerate. At the same time, it cannot be assumed that these children were mentally ill in the conventional sense of the latter term. Immediately after Intake, all children were seen by a Project psychiatrist for a diagnostic interview. Examination of the case folders indicates that the psychiatrist did not view this group of children as exhibiting diagnosable mental illnesses. Their propensity to "act out" was, however, quite obvious.

In the Initial group, there were many attempts by letter and telephone to encourage parents to visit the workshop or the office for discussion of the program. Many families had been approached on numerous occasions in an effort to gain their cooperation. There was only minimal response and for the most part parents arranged an appointment only in a crisis or under threatening circumstances such as a court appearance, or school disciplinary conferences. Under such circumstances, the staff was requested to extricate the client from some real or suggested threat. Having made at least one home visit plus a total appraisal, it was found there was a dearth of specific information for this type of client. Therefore, in the Replicate group, members of the staff were in the home many times, and all Experimental clients were encouraged to discuss their problems with the counselor at DVR, as well as with the counselor at the Workshop. The goal of helping them transfer their confidence in the two counselors (DVR and Workshop) to other authorities was achieved only with very gradual success. Profiting from our Initial experience, we tried several different approaches with the Replicate group. Whether dealing here with the effects of severe sociocultural deprivation or the consequences of longstanding emotional instability, the children of the emotionally disturbed group appear underveloped both in general intellectual capabilities, and current educational skills. The total sample showed Full Scale IQs ranging from 57 to 111, with a mean at 84. Their average reading grade level was between the fifth and sixth grade, and their arithmetic skills at about the fifth grade. There is good reason to believe, however, that these scores represent serious underestimates of their actual potentials.

Although 89 of the Emotionally Disturbed children were Negro and Puerto Rican in ethnic origin, it is more accurate to describe them as the children of poverty. Only 4 percent of their families can be said to have achieved white-collar employment status, while approximately 32 percent were on public welfare. The bulk of the remaining families had breadwinners with low-paying service or blue-collar jobs. The degree of intellectual and educational retardation of the emotionally disturbed children is not markedly different from the general situation characteristic of our ghetto schools, although perhaps, it can be argued that these children represent the more extreme cases of deprivation. It should be emphasized, therefore, that we are not dealing primarily with "emotionally disturbed" children, but rather with the more manifest and glaring examples of the consequences of living in the "subculture of poverty," a subculture which is complicated by discrimination and segregation. As will be seen more clearly in later sections of this report, the Emotionally Disturbed children face extremely complex problems of social and interpersonal adaptation.

As indicated in Supporting Table 38, the reading grades in all three disability units measured substantially below their intellectual capacities. Unfortunately, except for the Physically Disabled group, very little effort was made to remedy this deficit. At the outset of the study, it had been agreed among all participating agencies that "special remedial teaching should be provided by the schools and made available to individual subjects in the Experimental group as required. These services certainly should include remedial instruction in the areas of reading, arithmetic and speech therapy." Nevertheless, no special services were provided. In the "600" schools, 6 highly motivated boys became part of a remedial reading class through our program, after they had dropped out of high school. Three achieved quite dramatic results. One girl who requested help during the service period finally dropped out of school and in considering her for further vocational training, remediation was indicated as mandatory before meaningful training could be effective. Two cases are briefly summarized here for emphasis. Although not every student would have similar results, we maintain that each student deserves an exposure to remediation.

E.C. who demonstrated an average intellectual potential lacked self-confidence in her education and expressed inferiority to her age group because of her limited ability to read. She has been involved in an individually structured program and except for an interruption due to personal problems has maintained her motivation to learn. She now is making excellent progress in clerical training and shows a 3-year improvement in reading. The clerical and remedial programs are concurrently planned.

G.B. was described as a retarded child, and the psychiatric evaluation which was part of the research appraisal indicated the probability of a primary learning disability. As a subject in the Comparison unit, he did not participate in the service program. When reappraised, however, he expressed an eagerness for training. Initial reading evaluation placed him at about the 2.0 level and after an intensive course of less than a year, he demonstrated a 5.8 level. (Both scores were on the Gates Primary Test.)

The importance of reading proficiency and language skills is too well accepted to be belabored, and the value of remediation has been amply demonstrated elsewhere. Among the subjects in this sample, the need for remediation was clear. The "600" school students' appraisal mean was measured at a grade level of 5.4 to 5.9 for the Experimentals and a grade level of 5.5 to 6.0 for the Comparisons. Since these subjects are classified at the high school level, and because remedial reading services were not provided, the determination that this group might or might not have improved in achievement skills cannot be assessed.

The Testing Data

The mean IQs, reading and arithmetic grade placement for this group are presented in Supporting Table 27C at Appraisal and Reappraisal. Eighteen months intervened between test and retest; this was the equivalent of 2 full school years. With this time interval in mind, any gains that were made seem rather meager. Mean IQs gained about three points; reading grade placement increased by about half a grade; arithmetic skills improved very slightly indeed (approximately 0.3 of a grade). We also note that the Comparison children gained as much (or as little!) as the Experimental children. It seems clear that the Experimental service program had no observable effect on general intellectual potential, or on educational skills. However, the generally demonstrated capability to adapt to the environment seemed to belie the testing data.

The Rating Scale Data

The rating scales were completed by professionals at Appraisal and Reappraisal, the results of which were computed to derive a mean score. (Supporting Tables 28C through 32C) The results here must be interpreted with considerable caution because approximately one-half of the Comparison children could not be recaptured for Reappraisal. Given this caution there is some tendency for the Comparison children to be perceived somewhat more negatively at Reappraisal than was the case for the Experimental subjects. In an overall sense, gains and losses were minimal. (Supporting Table 28C) The workshop counselor felt that the Cs were less well-adapted than they had been at the start of the Project; and similarly, both the workshop counselor and the DVR counselor judged the Cs to have *less* potential for placement in employment than they had at the start of the Project. (Supporting Table 30C) They judged the Es to be slightly more placeable. On the other hand, the workshop counselor felt that the Es were *less* capable of maintaining employment, while the DVR counselor saw some gains in this area; both counselors saw only insignificant changes in the Cs. (Supporting Table 31C) The 2 counselors felt that both groups of children were *less* realistic in their vocational aspirations at the close of the Project. Throughout all the tables, the ratings made by the psychiatrist and psychologist show no consistent trends, except that those made by the psychologist tended to be more negative than the judgments offered by the psychiatrist. Few of these differences were of sufficient magnitude, or sufficiently consistent in direction to allow us to draw any positive inferences concerning the effects of the experimental service program.

The Followup Data

Successful followup interviews were conducted with 90 percent of the emotionally disturbed Experimentals and with 74 percent of the Comparisons. This represents a very considerable achievement by the Project staff, since most of these children had left school by the time the followup interviews were being conducted, and many had changed their original addresses. Actually, a larger proportion of the Cs were seen for followup than could be induced to return to the workshop for Reappraisal. In all, followup interviews were conducted with 91 of the total 112 emotionally disturbed children.

In sharp contrast to the physically disabled and mentally retarded groups, almost all of the emotionally disturbed children were out of school at the time of followup. Only 7 Experimentals and 5 Comparisons were still attending school. It would appear, however, that the Project had some effect on school-leaving behavior. The mean number of months since leaving school was 8 for Experimentals and 14 for Comparisons. Two-thirds of the Experimentals had dropped out of school within the semester during which the followup interviews were conducted, while the bulk of Comparisons had been out of school for a year or more. On the other hand, there were no significant differences between Experimentals and Comparisons in the reasons given for leaving school. Most were defined as school dropouts and 11 of the Experimentals and 10 of the Comparisons were either suspended or expelled.

A constant pattern of approval for the purpose of reinforcement became a positive element toward improvement of attitudes. A plan was developed to help each subject to adjust to the high school environment. When the student was considered ready for return to high school, a team met with the High School Guidance Counselor to work out a plan for offsetting some of the initial tensions associated with adjusting to this anxiety-producing atmosphere. (For a more definitive statement, see Appendix F.)

The problems evolving from pregnancy, and therefore forced withdrawal from school, were handled with appropriate referrals being made. Contact was retained with 10 girls after delivery who were offered subsequent help with a vocational plan designed to help them

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become gainfully and substantially employed. One of these girls has completed training successfully and is now employed full time. Five more are within 2 months of completing training at this point.

The boys (and a few girls) who became involved with legal infractions were followed in cooperation with their probation officers. Material was supplied to court and, depending on the length of incarceration, contact was maintained with the authorities where possible in order to assist the subject to readjust at the point of discharge. (See Appendix H-1, 2 and 8 for a more detailed discussion.)

A recent hypothesis projected by Cloward & Ohlin in *Delinquency and Opportunity,* suggests that "we can think of individuals as being located in two opportunity structures—one legitimate, the other illegitimate. Given limited access to success-goals by legitimate means, the nature of the delinquent response that may result, will vary according to the availability of various illegitimate means." Assuming that we understand clearly the premise, we have offered legitimate success goal opportunities in what is admittedly a limited number of cases, but we were unable to substantiate this suggestion.

Is it possible that the availability of various illegitimate means is so copious as to offset legitimate offers? While these adolescents were offered training and goal oriented counseling, they frequently rejected these offers in favor of law breaking activities. At followup, no significant difference was found between Experimental and Comparison in the employment data. While a substantially higher number of Comparisons were employed (or had been employed) than was the case for Experimentals, it must be remembered that the former had been "in the labor force" for almost twice as many months. The detailed findings show that 6 of 39 out-of-school Experimental subjects were currently employed, a total of 22 had worked at some time since leaving school and 17 had never worked; in contrast, 15 of 40 available Comparisons were currently employed, 34 had worked at some time, and 7 had never worked. An equal number of Experimentals and Comparisons (5 in each group) had either been in the Job Corps or some similar type of training program. More Experimentals than Comparisons were described as actively seeking employment. In all the other aspects of the followup schedule—living arrangements, social, and interpersonal adaptation, and eventual goals of the subjects—no significant differences could be found between the two groups.

Instead of concerning ourselves with legitimate versus illegitimate opportunities, one wonders whether we might more profitably examine the life span of these individuals with its many deprivations and conditioning in essential areas. One wonders further whether this hypothesis of legitimate and illegitimate opportunity pertains more to middle class standards than to the lower socioeconomic group. Possibly our views of what are legitimate and illegitimate opportunities could be at odds because of a culture variance. For example, the father of one 15-year-old male was astounded when his son was arrested for breaking and entering a laundromat. He was critical of his son and explained that he had taught him it was all right to take equipment such as tools and shop supplies from a job, but that "stealing" was wrong. The father was unsympathetic to the boy's inability to make this distinction. The confusion resulting from this kind of inconsistency creates difficulties in restructuring values for the child when attempts are made during counseling to define legitimate and illegitimate opportunities.

The value system is also a determinate in the community where unskilled adolescents earn money in readily available chores such as the "numbers" gambling system and respond to other offers which are known to be illegal to the established society but are not condemned by the community. The same community would probably, however, condemn outright theft and personal assault. From a middle class viewpoint, these endeavors are illegitimate; from some lower socioeconomic communities, these adolescents might be considered industrious and ambitious.

A review of the emotionally disturbed revealed no significant differences in vocational readiness between the Comparison and Experimental units. Twenty-one of 28 students in the Experimental unit who are responding to counseling efforts are working full time or have had full time employment for a substantial period. In the Comparison unit, 22 out of 28 students with whom we were able to maintain contact, are working or have worked substantially. Seven Experimentals are still in school or private trade schools while 6 Comparisons are in this category. Although there were no statistical differences we feel that the qualitative differences are worth noting. Examples of the levels of vocational readiness success are demonstrated in the following summaries:

1. J.T.—Young woman from an unstable family unit supported by Aid to Dependent Children, demonstrated low-average potential,

with achievement levels about two grades below norm. On retesting, she had recovered this achievement deficiency and her ability appeared to be well within the normal range. With no father in the home and five siblings, plus a mother who drank excessively and had little interest in her daughter's problems, client was dropped from high school because of pregnancy. After delivery, we resumed contact and she was placed in a Business Training School where she is making good progress. It has been necessary to bring in two other community agencies in order to make this plan possible since the problem in the home could be prohibitive without help from these cooperative agencies.

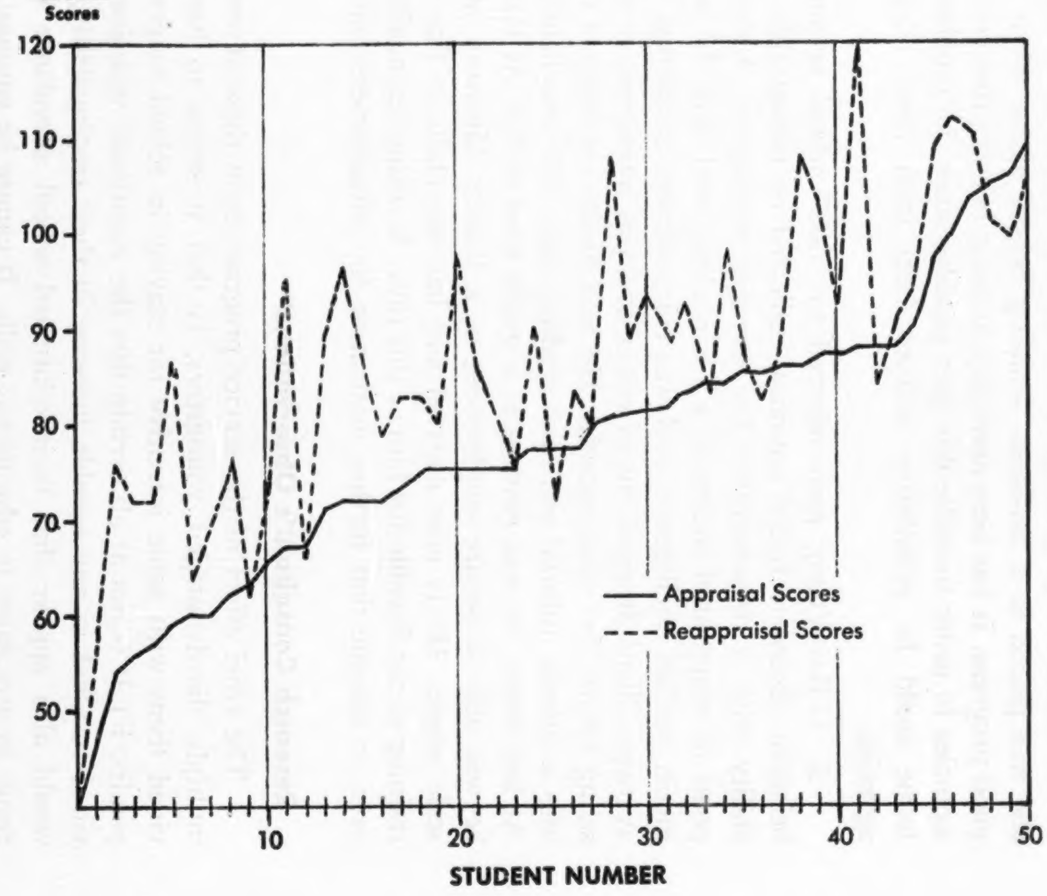
2. G.B.—Young man referred to "600" school because of a behavior disorder. Initial appraisal indicated no measurable reading ability with a demonstrated low average intelligence. Retesting at point of reappraisal indicated a 1.8 reading level with 3.5 in arithmetic, but his intelligence level was demonstrated at average to high average. Client dropped out of school and was unresponsive to counseling efforts for some months. He was finally encouraged to enter into a private tutorial remedial reading class with excellent results. At last retest, he was reading at a grade level of 5.6. At this point, he was able to secure employment as a Bakery Mechanic at union scale wages. He is now married and has one child so that further training is not feasible for him at this time. It seems reasonable, however, to assume that further motivation for advancement may occur.

Research Consultant's Observations

The chief effect of the service program upon these severely and multiply disadvantaged youngsters, is that it seems to have provided them with some incentive for staying in school longer. (Appendix F) It is not at all certain that the vocational experience provided resulted in any notable increase in their employability, and it would also appear that their continued school attendance did not result in any gains in educational skills. It cannot be emphasized too strongly that these children are so severely and multiply disadvantaged by negative sociocultural conditions that they appear unable to cope with ordinary demands for educational and vocational achievement. These issues will be further discussed in a later section. The Physically Disabled are known to have a lower dropout rate than the other two units. With reference to our attempt to deal with dropouts in the Emotionally Disturbed unit, see Appendix F.

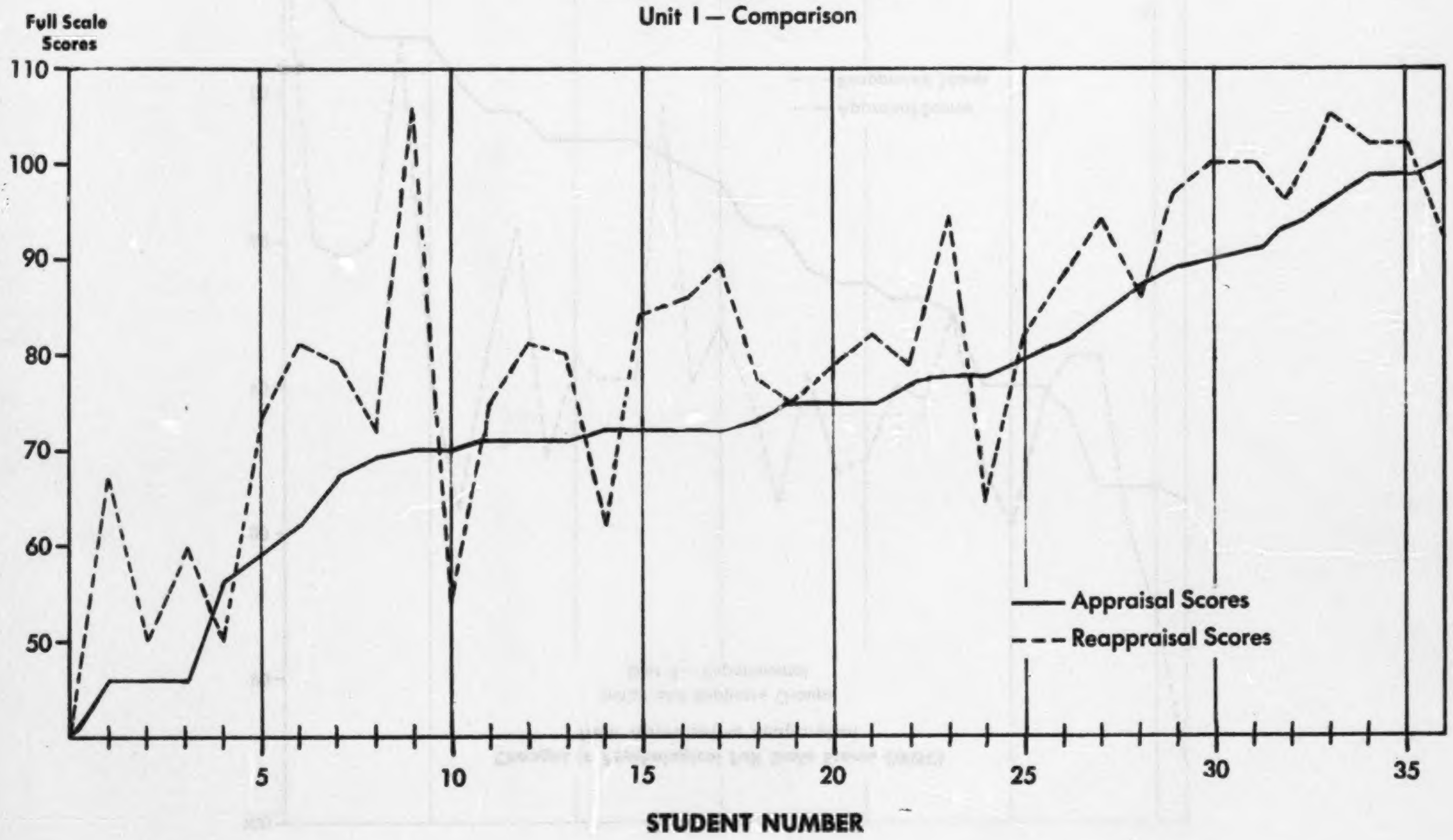
Changes in Psychological Full Scale Scores (WISC)
from Appraisal to Reappraisal

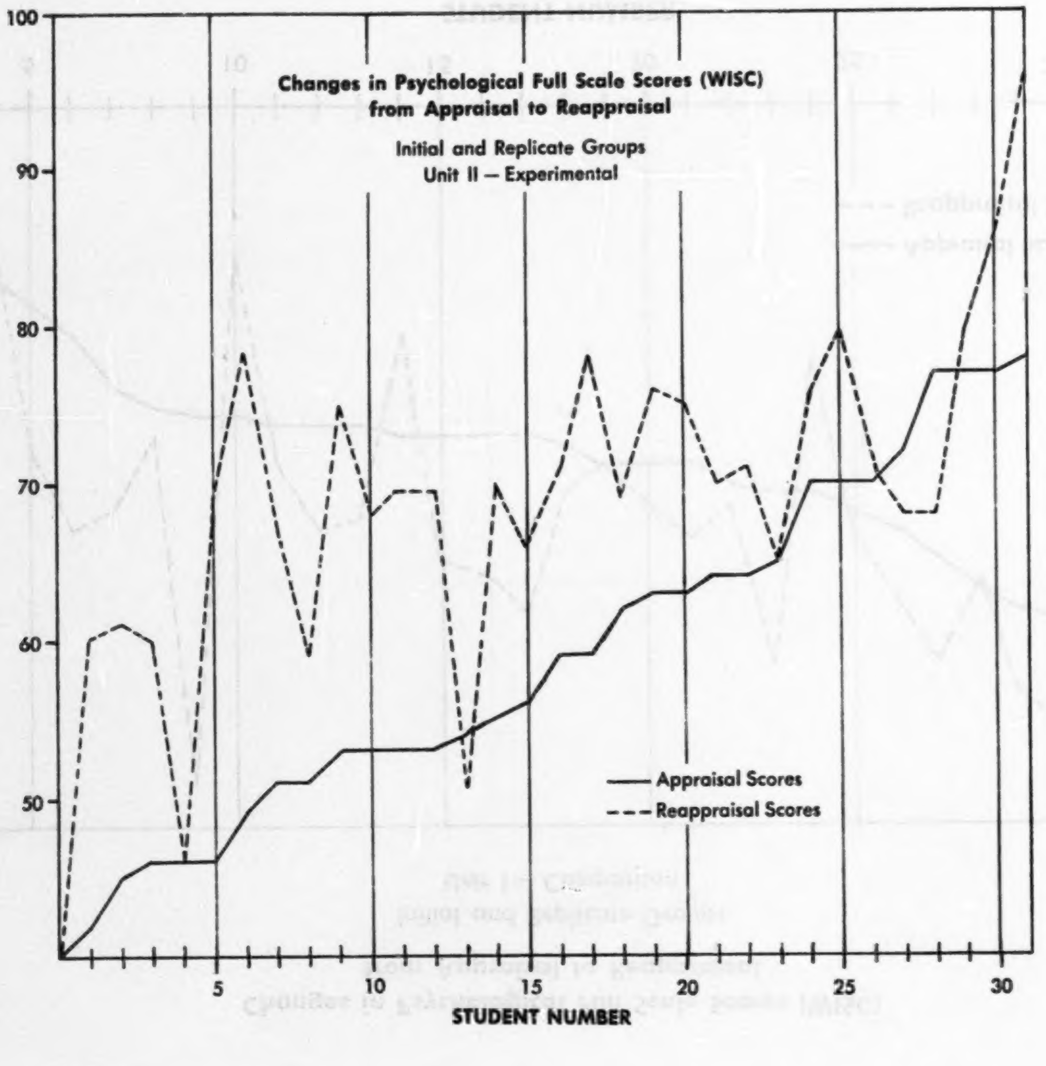
Initial and Replicate Groups
Unit I — Experimental



Changes in Psychological Full Scale Scores (WISC) from Appraisal to Reappraisal

Initial and Replicate Groups
Unit I — Comparison





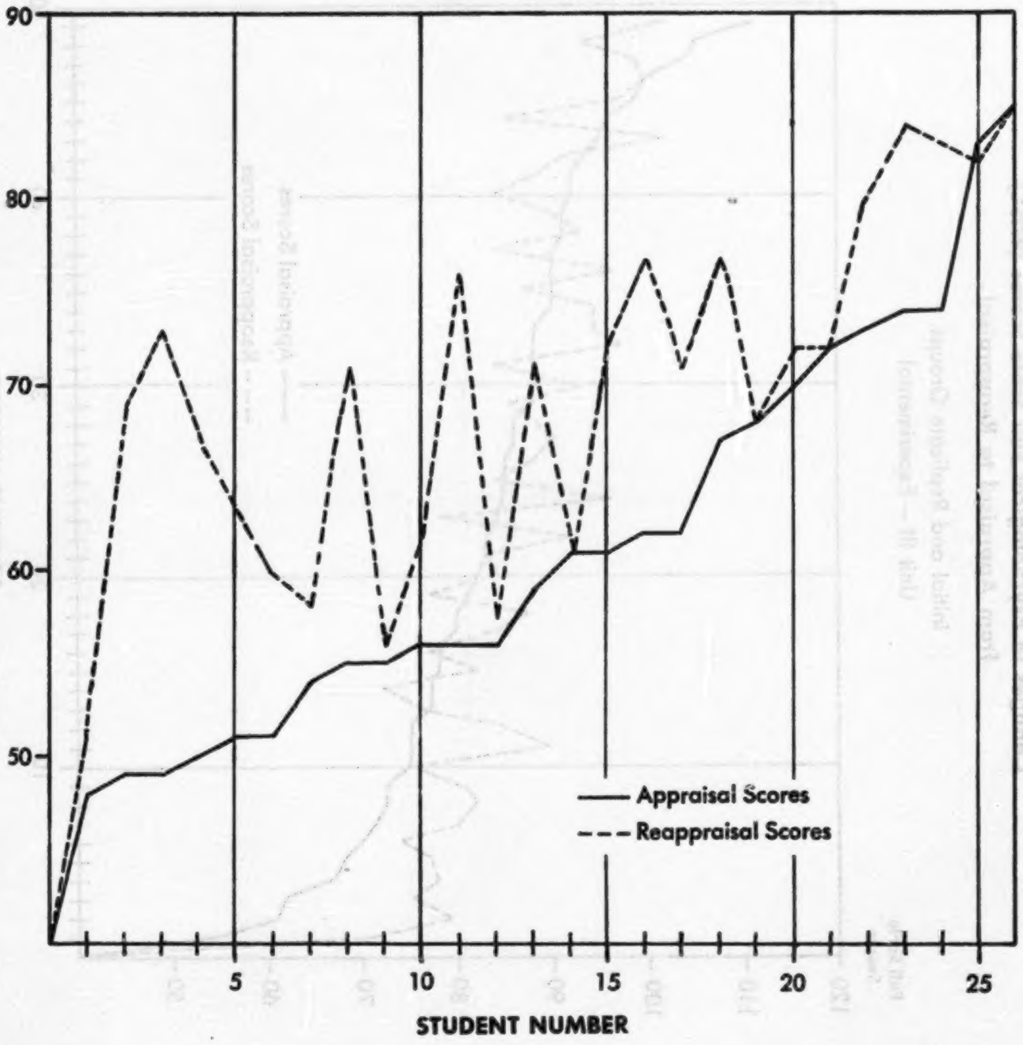
Changes in Psychological Full Scale Scores (WISC) from Appraisal to Reappraisal

Initial and Replicate Groups

Unit II – Experimental

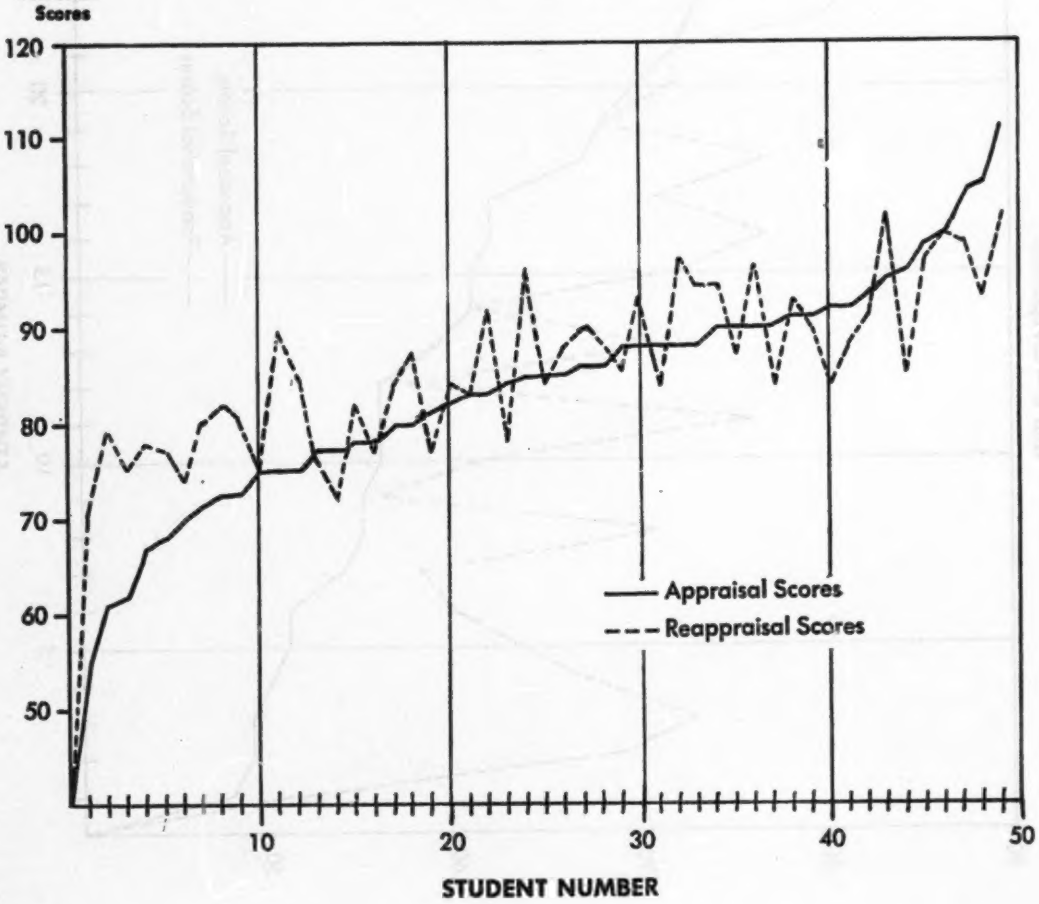
Changes in Psychological Full Scale Scores (WISC)
from Appraisal to Reappraisal

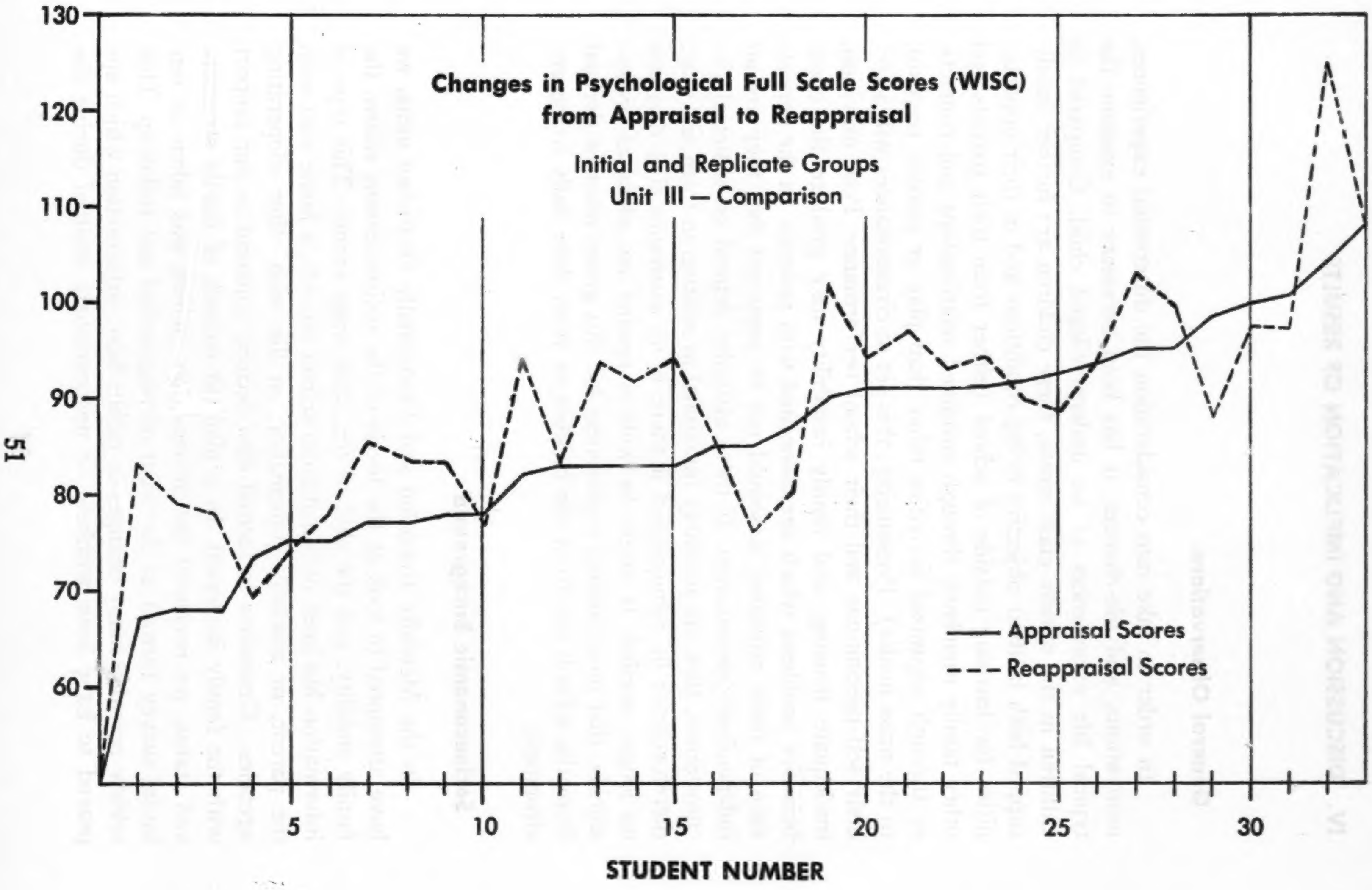
Initial and Replicate Groups
Unit II — Comparison



Changes in Psychological Full Scale Scores (WISC) from Appraisal to Reappraisal

Initial and Replicate Groups
Unit III — Experimental





Changes in Psychological Full Scale Scores (WISC) from Appraisal to Reappraisal

Initial and Replicate Groups
Unit III — Comparison

IV. DISCUSSION AND IMPLICATION OF RESULTS

General Observations

In order to take into consideration the differential experiences, motivations, and life-chances, it has been necessary to examine the typical life experiences of an underprivileged child. Compared to children in the middle class strata, these children are further handicapped both in their objective living conditions and in their opportunities for learning outside of school (either from their parents and other family members, through sustained relationships and contacts, or through organized activities other than play or passive response to the mass media). Presumably, this set of circumstances will affect their self-perceptions and their school performance. Poor nutrition, inadequate housing, and family instability may produce the client behavior problems which are associated with poverty. In the persistence of these attitudes, it should not be supposed that they are an independent phenomenon. If these attitudes depend on material circumstances, they are probably functional in relation to them and may, therefore, not be relinquished if there is no assurance that they are no longer needed. It might be well to remind ourselves as professionals, that most success experiences for this group must be derived from the school, not from the families or from their daily living environment.

Socioeconomic Background

In the Mentally Retarded and Emotionally Disturbed units, we have attempted to look at the levels of the socioeconomic status, the family stability, and the skill of the chief wage earner. This type of information has been obtained from school records, a home visit with the parent, or available information on file with other cooperating agencies. Omissions in factual data became apparent as our rapport with the family increased. In a planned recheck of family structure and status, we reviewed the information (which was taken on our initial survey forms) at the point of reappraisal and followup. This review revealed many changes in rather basic information which appeared to have been withheld or unconsciously omitted during the initial contact. Such findings indicate a need for emphasis on cross-checking recall data. The information gathered from school records, client interviews and interviews in the home proved to be unreliable when an attempt to confirm the initial information was made. At the point of the initial interview (usually conducted with at least one parent accompanied by the client), it was unusual if we were informed of the specific categories of public support under Social Security, Welfare, Aid to Dependent Children and/or private agency help. This omission could be understood since distinguishing categories of relief is not a simple process. It was also observed that the tendency to upgrade the occupation of the wage earner became sufficiently significant to give our total evaluation less credence than one might anticipate. Very broad categories were consequently used in determining the socioeconomic background and it is suggested that without extensive documentation, this information cannot be scientifically validated.

Vocational Status of Families of the Three Units
Initial Group and Replicate Group (Combined)

Classification	Number	Percent
Prof.-Exec., Semipro., White collar	44	20.1
Manual, Skilled, Semiskilled	130	59.3
Unskilled	38	17.4
Employed (Occupation unknown)	7	3.2
Total	219	100.0
Unemployed	61	

The tendency to upgrade jobs and failure to acknowledge the welfare assistance might be considered a family effort toward upward mobility in community status. In Unit III, however, our judgment of the family was complicated by a lack of interest or knowledge of their child's involvement in our program. For example, in an attempt to ascertain the early medical history of our clients in this group, a parent would suddenly remember an illness which had in one case involved two weeks of unconsciousness and hospital care for the child. This particular fact could not be followed up because of insufficient vital information identifying the incident. Few of these children had regular clinical contact, but many had physical complaints which after medical examination, resulted in a range of findings from previously undiagnosed epilepsy to malnutrition.

Ascertaining the size and exact composition of families was a problem in this unit but it was felt that after two years of intensive contact, the final followup very probably yielded a reliable picture.

Families and Homes

Our judgment of the family unit and the home as an influential environment and its cohesiveness was made on an objective level using designated guidelines. In determining positive or negative influences, we were less concerned with distinctions of one parent, two parents or a foster parent relationship, than with the indications of warmth, encouragement, and interest in the child and his educational progress. Glueck has studied factors of family cohesiveness, in another context, toward the objective of predicting juvenile delinquency.[17] In the Glueck study, two raters were used scoring each case independently. When they agreed, the rating was accepted; when disagreement occurred, a third and sometimes a fourth rater was used. This technique was not built into our study but if feasible, it would have high value for this type of assessment rating. It seemed to us that the amount of support which the child could expect from his home environment related positively to his interest and development in the learning process and was limited only by his capability to produce. The child who was reported to have poor or negative support usually responded in a similarly negative manner to a learning situation.

These environmental influences are not clearly separated and the weaknesses suggest a need for support by professionally skilled workers. For example, if a child came from a home with poor support and was assigned to a school where little was expected of him, we would expect a negative result; if the same child could be given a feeling of positive expectation in the school, we would hope to counteract the poorly supportive home situation. In that event, we could then set up goals in the school and in the community to compensate for the negative home influences. The negative impact of nonsupportive influence often is ameliorated by professionally skilled workers.

Bernard has categorized the family unit into four levels in her Power-Support Paradigm.[18] We have used only two levels since most of the families in our study are found in the power high, support low or power low, support low groups.

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[17] Maude M. Craig & Selma J. Glick. Application of the Glueck social table on an ethnic basis. National Council on Crime and Delinquency, 44 E. 23d St., N.Y. 1965.

[18] Jessie Bernard. Marriage and family among Negroes. A Spectrum Book. p. 122. Prentice-Hall, Inc. Englewood Cliffs, N.J.

Power-Support Paradigm

Combination	Family Type	Personality
Power high, support low	Dictatorial or demanding; authoritarian or exploitative; traditional	Withdraws; avoids; relinquishes
Power low, support low	Neglectful; detached; ignoring; self-centered	Is aggressive, impulsive, quarrelsome, irritable; analyzes; disapproves; resists

Bernard uses definitions from Strauss.[19]

> Power is generally defined as "actions which control, initiate, change, or modify the behavior of another member of the family."
>
> Support is interpreted to mean "actions which establish, maintain or restore, as an end in itself, a positive relationship with another family member."

In working with our population, we became aware of the deep significance of home factors and in particular, the role of the parents in relation to our goals. We found it crucial to clarify the nature of power and support conditions in the home before we could initiate remedial procedures. In many cases, our procedure included adopting the role of parental surrogates.

Since objective measurements based on observation and on-going interviews were used, two categories were established for assessment of the degree of family disorganization. In the chart which follows, the presence or absence of real or substitute parents did not distinguish between the classifications: "Moderate" to "High," and "Mild" to "None." Thus, there were families in the "Moderate" to "High" classification which had both parents but were judged as a disorganized, unstructured unit; and there were instances of substitute parents in the "Mild" to "None" classification.

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[19] Murray A. Strauss. Power and support structure of the family in relation to socialization. Marriage and the Family. Vol. 26; Aug. 1964. p. 318.

Estimate of Family Disorganization
Initial and Replicate Groups (Combined)

Classification	Number	Percent
"Moderate" to "High"	85	29.8
"Mild" to "None"	200	70.2
Total	285	100.0

The physically disabled unit presented a more positive picture of family stability than the mentally retarded and emotionally disturbed units. In the mentally retarded and emotionally disturbed units, reaching a determination of family structure was much more time-consuming.

This value of family support, or lack of it, became evident as the program evolved, among the physically disabled, it became evident during our planning for travel training. Many of the subjects in the Physically Disabled unit were unable to travel either because of their physical limitations or because of lack of training in travel techniques. Since independent travel is one of the prime requisites in planning toward gainful employment or training in an urban area, counseling with family members was specifically concerned with instituting such training, when a written medical approval was on file. This phase revealed parental and client problems of overprotection and extreme anxiety by some of the clients. The majority of students who were medically approved were able to travel when their program was completed. In Unit II, the Mentally Retarded group, family support was also weak. This group was composed largely of subjects who had Spanish speaking parents, and although counseling and planning were offered in Spanish, the parental response was minimal. The information on these families was obtained through frequent client contact and home visits.

In Unit III, the Emotionally Disturbed group, the family structure was the most disorganized of the study population when judged on the basis of the traditional family composition. Only on rare occasions was the family judged to be supportive in a constructive sense. From the information given, about half of the Emotionally Disturbed group had one parent and there did not seem to be any substantial pattern of success, or lack of it, based on one or two parents in the unit. These parents seemed to aspire to much lower goals for their children, and responded poorly, or infrequently, to offers for appointments. These appointments were arranged to discuss vocational adjustment possibilities for their children. A followup attempt to visit the home often met with an utter disregard for the appointment previously agreed upon. (This factor regarding responsibility for punctuality and attendance presented an on-going problem in working with the subjects in this unit.) The parents who were seen on a planning basis in the Emotionally Disturbed group during this program, usually met with the Counselor to solve some immediate problem which inconvenienced, or threatened the status of the family unit. Since long range planning with vocational or social goal orientation appeared to have less meaning for parent and child than the solution of an immediate crisis, we were frequently able to utilize such a crisis to formulate a plan which introduced a scheduled vocational program on a graduated level.

Recapturing the Sample for Reappraisal

The difference in the effort required to recapture the students in the Initial study group, as compared to our efforts in the Replicate group is noteworthy. (Supporting Table 33C) With the distinct advantage of hindsight, we were able to maintain constant contact with the Comparison Group by letter, interview once each term, and by regular discussion with the Guidance Department of the school in which they were reported to have enrolled. In this way, we kept abreast of dropouts and could anticipate the problem of followup. In the Replicate group, Unit III, the Emotionally Disturbed group, the technique of a paid interview at the workshop locale was also used. This technique was extremely effective and the number of necessary contacts for an effective report was minimized. Various traditional methods of case contact were utilized; ordinary mail, registered letters, telephone, telegraph, school visits, home visits, and collateral contacts with family members, friends, and known agencies. No case was considered unreachable until all avenues of communication had been exhausted. In some of the cases most difficult to reach, transportation was arranged with a stipend and a firm commitment for an appointment. Even with this extended and reinforced effort, one-third of these subjects still failed to respond.

Medical Evaluations

During the process of planning for the Initial study group, it seemed that we might strengthen the medical evaluations of the Mentally Retarded and Emotionally Disturbed units by conducting neurological examinations. (Appendix E) While a considerable degree of abnormality was found, it was determined that this approach would not be continued into the Replicate group because of the absence of a comparative group from the normal population. (Supporting Tables 3 and 4) While we had what might have been significant findings in the Appraisal group, the suggestion was made that a further study of a like group, selected to evaluate the relationship of clinically diagnosed neurological impairment to the mentally retarded, might be worthy of consideration. With the foresight to plan a matched sample from a normal population, those students designated as behavior problems might also be studied for neurological inferences. Because learning retardation was a major common symptom in the Mentally Retarded and Emotionally Disturbed units, the neurologist made the following observation: "How many children in these two groups show this symptom as a result of either actual brain damage or some disturbance of neurological development? The nervous system evaluation, especially if done in the early years, may be of help in deciding the educational approach." (Appendix H-6)

An evaluative process with the Physically Disabled Unit was also explored in which an attempt was made to estimate the degree of disability in relation to the vocational potential. It was the opinion of the Medical Consultant that such an evaluation, projected over an extended period (from age 14 until employability), would be unrealistic in view of new medical procedures which might alleviate or sufficiently alter the limitations of a substantial number of this group. This evaluation was, therefore, not pursued for the Replicate group. In general, the medical information available was limited, including that of those children who had lived in areas under the jurisdiction of health services available to all school children. The physical conditions uncovered during the general medical examination, which was part of the initial appraisal for each child in the study, led to the initiation of specialist examinations. Furthermore, it became apparent that the majority of these families were unfamiliar with the need for regular clinical care or methods of obtaining such care. Such infrequent medical contact might imply that poor school performance and failure could at least be partially attributable to poor health care. The chronic health problems of underprivileged areas, including prenatal and postnatal care, seem to be encompassed by little clinical contact and followup.

Over this 5-year period, findings continually yielded measurable gains for the Physically Disabled, inconclusive to minimal gains for the Mentally Retarded, and raised many questions regarding the evaluation of the causative factors in the Socially Maladjusted group. Many issues have been noted and included in the Appendix which suggest further and more comprehensive study.

Variability of School Assignment

The study design had assumed that students would be admitted to the program at ages 14 to 16, and that each disability unit would be set up as four class groupings within their school setting. (Initial and Replicate study groups each divided into Experimentals and Comparisons.) They would remain in the program in this form for 2 years. As previously mentioned, in actual practice, it was not possible to adhere to this structure, except for the age limitations. The sample for all disability units was ultimately dispersed to 108 different classes! The Initial group was derived from 20 classes and the Replicate group from 19 classes. The shifts for the most part involved transfers of students particularly the Physically Disabled students, to high schools. A smaller portion is attributed to the transfer of some of the Mentally Retarded and Emotionally Disturbed students to high schools. The collaborating agencies concluded that it was impractical to continue such transferred Experimental students in the workshop service program because the loss of 2 days from academic studies could be a major factor in their failure to adjust. The case finding for the Replicate group further substantiated the unavailability of a study sample at one school site. In addition to the case finding problem, the distribution of the cases and their eventual dispersity varied, which was a considerable disadvantage for program management. (Supporting Table 2C) The mobility of "600" school students was particularly extensive, taking the form (in addition to school transfers) of school discharges because of chronic and widespread lateness and truancy, school dropouts, conflicts with the law, pregnancies, and incarceration at Youth Houses and Training Schools. Fortunately, the fall-off of "600" school students had been anticipated to some extent at the very early stage of project organization, and the sample for this Unit was doubled as insurance against this eventuality.

Nevertheless, the scattering of the sample eliminated the possibility of achieving the desired group cohesion of each unit in a single class, with the same teacher, and with the continuity of students in the group over a 2-year period. It was planned that the teacher would accompany her class to the rehabilitation center and thus be fully exposed to the vocational program. One of the values that could not be measurably achieved was the transference by the teacher of vocational ideas to the educational milieu. Administrative relationships were greatly multiplied, and the task of retrieving the sample for reappraisal was made considerably more complicated.

Vocational Readiness

Since the term, "vocational readiness," was a focal issue in our investigation, and in view of the many articles and studies done around this subject, it seems pertinent to submit a clarification of terms used and of the subjects studied.

We have, therefore, specified that a subject is considered to have acquired vocational readiness when he can be assessed as having at least one of two levels of success.

1. Having entered a *suitable* vocational training program during or following a period as an active client of the DVR agency, or,

2. Having worked full time in a reasonably responsive manner, for an acceptable period of time, in *suitable* employment.[20] (The period of time may vary depending on the job and client complexities).

Though the numbers involved are small, a general pattern may be discerned which may be of interest here. The disparity between the Experimental and Comparison groups in Unit I, (Physically Disabled) is minimal with the exception of those individuals in employment. Even at this rather early stage in their vocational development, 6 Experimental students were in employment while no Comparison student had made a vocational adjustment in full time employment. However, if one assesses the combined disability groups, there is no significant difference. (Table Below) Previous discussion of qualitative differences and subsequent case histories suggest the fallacy of reliance on the numerical outcome alone.

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[20] Suitable training/employment is interpreted by State agency regulations as follows: "the physical and mental demands of the training/employment are consonant with the physical and mental limitations of the client, and other personal factors and the clients' terms of employment conform to all applicable laws."

Initial Group and Replicate Group
Degree of Vocational Readiness of the Physically Disabled, Mentally Retarded, and Emotionally Disturbed in Experimental and Comparison Groups
(as of 12/67)

Classification	*Experimental*		*Comparison*	
	No.	*Percent*	*No.*	*Percent*
In Suitable Training	13	16	11	13
Employment (Past or Present)	30	36	29	35
Total	43	52	40	48

Examples of success levels:

1. E.D. Young man, 14 years, 8 months, at Intake with a congenital cardiac condition 2-B; Pes Planus, with mild atrophy and shortening of the left leg. Client wears a brace and special shoes. This orthopedic disability is complicated by the congenital cardiac condition which is operable, but client's mother refuses permission for surgery. Family is composed of his mother and one younger sibling, and the main support is the Department of Welfare. At Intake, client was described as a youngster with marginal ability, but one who put great effort into his school work with minimal results. Psychological tests, group therapy, and intensive counseling, however, indicated a high average potential with below grade level achievement. At the termination of the service period, his achievement scores were at grade level and he was clearly able to demonstrate a high level of promise. Client responded exceptionally well to counseling, and the Counselor's efforts to help his mother understand the need for further training became an extremely difficult problem. She was finally willing to consider a short term course if it could be financially supplemented. She became overwhelmingly anxious that client begin work full time and help support the family. This young man has completed a course in photography, is currently employed and making very good progress. It is hoped that he can be encouraged to continue his education when he is adjusted in his field of employment.

2. E.F. Young man, 15 years and 10 months at point of Intake, living with both parents; the father supported the family as a factory

worker. Client was the youngest in family with two older siblings. Family stability appeared to be good. Psychological tests suggested very minimal achievement levels with a Dull Normal intelligence. After 3 terms in the workshop in the Experimental unit, achievement levels were raised by about two grades with no significant difference in the intelligence scores. Client found it impossible to keep up with his class and lost interest in school probably because of his low achievement level. He finally dropped out of high school. As a result of counseling, he was tried out in the electronics workshop which was successful. A plan was developed for client to enter training in Precision Tool Work. He completed training successfully in about 9 months, and is currently employed, having received two promotions which included increases in salary.

V. SUMMARY

We have reported both positive and negative findings in our experience with this program, and for the most part the replication data have substantiated our earlier findings. Several problems were generic to all groups and are herein noted.

Interagency Collaboration

This program suggested a plan for organizing and directing an attempt at shared experiences that would afford an opportunity to relate processes of evaluation to educational and health programs. With an ultimate goal of individual vocational planning, the structure implied is one which would be formulated on the basis of individual specifics rather than generalities.

The design of this collaborative project and the content of the methodology were contingent on dependable cooperation among all participating agencies. While interagency collaborative arrangements have been quite successful, the very fact of a multiagency focus on a single client has inherent qualities of disagreement and occasional discord. Traditions, policies, philosophies, and practices in regard to the same problem differ from agency to agency, school to school, principal to principal, and director to director. To a remarkable extent, potential trouble areas rarely occurred but when they did they were handled within an acceptable professional interagency context. Part of this problem solving was built into the schedule by regularly planned unit conferences to which all levels of professionals in each agency were invited, and provided with an agenda. A considerable amount of time and effort were expended in an effort to plan meetings with an aim toward clarity, specificity, personal needs, perception, motivation (commitment), and feedback. We attempted to recognize and identify "the hidden agenda" (as many writers have observed) which many persons bring into a group participation. We subsequently sent out questionnaires in this regard with surprising results. (Appendix I) For the project staff, collaboration among independent autonomous agencies has also meant incomplete control over its sample population; of necessity, each agency's internal policies and practices superseded the protocol of the project; it was a very small aspect of the total agency's operation, and had to take second place or lower in the scale of agency priority. The benefits of multiagency collaboration would seem to offset the defects of the total experiment.

Problems of Variability in School Assignments

The term "variability of school assignment" is used here to discuss transfers between schools whether by reason of educational planning or family circumstances requiring such a change.

Previous discussion of the sample distribution and the eventual dispersal of students suggest the difficulties involved in followup. In addition to this problem, and more important to the study, was the fragmentation of the cohesive services as they had been planned. Considerable value might have been derived if we had been able to maintain at least a nucleus of Experimental and Comparison groups in one school under one school jurisdiction for comparative purposes. It must be understood, however, that the age range 14 to 16 presupposes considerable movement since this age group usually involves at least junior high school to high school in a routine transfer.

Unit I — Physically Disabled — Promising Implications

The ethnicity of this group more nearly represents the distribution on a metropolitan level since according to Marilyn Gittel in *A Study of School Policy in New York City,* 45 percent of the school population in 1964-65, were of minority groups. (Supporting Table 40) The group responded to the program more positively, and Experimentals made overall gains in school achievement, workshop skills, and vocational awareness. The dropout level from our program was minimal. These results would appear to substantiate the usefulness of a more firmly entrenched vocational and remedial program in the school curricula for the Physically Disabled. In our experience, several teachers reported that students in the handicapped classes were not permitted to be scheduled for workshops. If an on-site vocational program could be developed in one selected school where better research controls were maintained, this would seem to be a more promising area for further research and demonstration. Since there are limitations on removal of the student from the school site, a program worked out by the Board of Education with a DVR vocational counselor assigned to provide and manage the necessary evaluative services might be considered. This plan could begin to supply some definitive answers to the present training program which fails to offer a full educational experience to the handicapped students.

Unit II — Mentally Retarded — Profitable Conditioning Experience

The findings on both a qualitative and a quantitative basis were inconclusive. Several factors were involved, and one major problem was the sharp turnover of key staff in the workshop. The student sample was relatively stable, the majority coming from one school with a teacher in attendance, but during the period of workshop attendance for the Initial and Replicate groups, there were at least 6 different workshop supervisors of the group. We were attempting to emphasize stability for this group, and even with the need for a change of supervision, had hoped for adequate client preparation which was not provided by the agency. Some of the replacements were made not only without adequate client preparation, but this difficulty was compounded when the staff replacements were individuals inexperienced in the field, generally new to the agency, and completely unfamiliar with the research project's program and goals. As a purchaser of services, the project could not adequately exercise control over such internal agency problems as staff appointments, quality of supervision, and certain aspects of direct client service, such as handling problems of discipline; selecting particular types of work experiences; relating parents of students more closely to the vocational setting; and adaptation of vocational processes to the educational milieu.

In our final interagency conference on this unit, the workshop program administrator's statement on his observations of the program was as follows:

> The overwhelming number of Handicapped Students Research Project clients were not mentally defective in the sense that their learning impairment could be traced neither to brain damage nor to inherited factors. They apparently got into C.R.M.D. classes because of learning problems originating in a family and social environment which discouraged adequate school performance.
>
> As a result they felt out of place and demeaned in a training center almost all of whose trainees are mentally defective and many of whom are stigmatized and bizarre.
>
> Because of the absence of brain damage, the finger dexterity and mental coordination and general physical capacity

of the Handicapped Students Research Project people were superior to those of the others so that the work we had available for them was not sufficiently challenging.

Because of the immaturity of the Handicapped Students Research Project persons, their greater vigor, their poorer impulse control (due to personality reasons rather than brain damage) and the greater incidence of character disorders among them, they were more difficult to discipline and we were not adequately prepared to cope with them during break and lunch times although we provided dancing sessions and adult types of games.

It was difficult to redesign our regular treatment program which emphasizes needs of anxious, socially incompetent, inarticulate, dependent, withdrawn persons for whom work-a-day world is frightening and alien, to clients who are generally socially competent, albeit immature, outgoing, assertive, were hostile-aggressive, independent, who did expect, one day, to work in a work-a-day world they knew.

We felt that the overall experience was helpful and that it provided some limited view of the working world. We did not feel that this experience was as profitable as that which a built-in workshop might allow within the school curricula. Such a method could incorporate remedials, adjustments for personal differences, and clearer evaluations of work limitations and potential. There should have been some attempt to reach each student's potential level of function.

The marginal outcome seems to indicate the possibility of further study within the school system to clarify the extent to which a well planned, well organized program geared to the needs of these students could derive a more measurable benefit toward vocational readiness.

Seldom will the accumulation of facts alone give us a clearcut and unequivocal answer to any important policy question. It is hoped that a joint effort to analyze the mentally retarded population, its potential, and the available facilities offering meaningful services to this group, would result in a more positive approach to the solution of the program's current weaknesses.

Unit III — Emotionally Disturbed/Socially Maladjusted — New Approach Needed

This study raises the question again of the interrelationship between social class and the rehabilitation process. Several factors intervened which must be considered "presumed determinants." The socioeconomic level of especially the Socially Maladjusted — Unit III (and the Mentally Retarded — Unit II) has exerted its impact and increased the need for us to understand its forces. In all units, we observed below potential achievement levels and in the Emotionally Disturbed unit, an unexpectedly high incidence of incarcerations, and out-of-wedlock pregnancies. Dr. Robert P. Overs has stated in *Sociological Aspects of Rehabilitation,* that when a child holds middle class values of impulse control, deferred gratification of immediate desires for future benefits, belief in education, training, self-improvement and self-discipline, we define him as a "good" rehabilitation client. If on the other hand, he holds lower class values such as living from day to day, impulsive behavior, gratification of desires immediately, belief in and reliance on luck, chance, or pull, we define him as a "poor" client. The question is raised as to whether for the lower class client, the rehabilitation process is not one of shedding his lower class values and accepting middle class values. It would appear from our experience, that one approach toward planning might involve accepting the attitudes of the externally oriented client with a view toward attempting to help him build a bridge toward the acculturated level on their own terms. Too frequently, programs supposedly planned for lower income students, are middle class oriented. Perhaps some of the school curricula and vocational ideation should be revised with a radical approach toward the lower class student. The development of a model structure toward practical problem solution seems a reasonable beginning toward the training goal. As suggested by Linton "the slum dweller's child has commonly experienced parental rejection, school failure, police hostility, family and street violence, the apathy and patronizing callousness of public officials and eventually the reality of being an unwanted commodity in the labor market."[21] The motivational systems which are peculiar to this specific subculture might be explored more thoroughly in accordance with McClelland's thesis which holds that subculture value themes produce differing kinds of motivational systems.[22] Curricula planning within the values of these systems may well be the entering wedge. The goal toward gainful employment remains inherent, but acceptance of the full range of middle class values seems a questionable agency goal or function. This suggested approach requires a skillful counselor who is willing to understand the life forces at work in the subculture; it certainly requires an administration willing to consider assigning fewer cases to such a caseload to permit the counselor to sustain a comprehensive casework relationship. We had considerable difficulty keeping abreast of our caseload of sixty in the Emotionally Disturbed group — Unit III, since casework techniques such as inter- and intra-agency conferences are mandatory as well as visits to the home and school, frequent planning with medical resources, and court interventions. The number and depth of required contacts are extensive.

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[21] Dr. Thomas E. Linton. Social and cultural factors in deviant classroom behavior. Unpublished paper at annual Orthopsychiatric Conference, Portland, Oregon. 1965.

[22] David McClelland and others. The achievement motive and other related works. Appleton-Century. New York. 1953.

In essence, the proposals which we are suggesting can be found frequently in the current literature, but are worthy of repetition. Counseling and planning for the lower income client could be more effective if our counseling goals were more directed toward showing the counselee the possible ways to develop mobility and a way out of his encirclement. The counseling techniques (which presumably might even include middle class orientation) would have a stronger possibility for eventual success. Such a sense of identification and limited goal orientation would tend to bring about a realization that there are "few rewards in slum life." This would be a multi-agency effort, and the counseling effort might be preceded by an elementary educational experience which could be planned to interpret education as an avenue of escape. As Lee Rainwater has indicated with regard to the slum world, "little in the experience that individuals have as they grow up sustains a belief in a rewarding world. The strategies that seem appropriate are not those of a good family-based life, or of a career, but rather strategies for survival." Thus, it would seem too ambitious to plan first to develop a protestant ethos regarding work before attempting to familiarize the client with the more immediate gratification of a "strategy of escape."

TABLE 1

Supporting Table

Mean Sizes of Special Public School Classes, 1958 and 1959

Type of Class		Mean Size as of October 31 1958	1959
Health Conservation	— Elementary	12.2 pupils	12.1 pupils
	— Junior High School	15.8 pupils	13.0 pupils
CRMD	— Elementary	13.9 pupils	13.2 pupils
	— Junior High School	17.0 pupils	16.9 pupils
600 Schools	— Including High School	12.7 pupils	12.4 pupils

TABLE 2

Distribution of Study Sample

A — Initial

Disability Group	No. of Students	No. of Schools at Intake	after 18 mo.
Health Conservation	55[a]	14	23
Mentally Retarded	35[a]	3	7
"Emotionally Disturbed"	50	3	8
	140	20	38

[a] One case dropped after appraisal.

B — Replicate

Disability Group	No. of Students	No. of Schools at Intake	after 18 mo.
Health Conservation	55	14	38
Mentally Retarded	31	2	9
"Emotionally Disturbed"	61	2	21
	147	18	68

C — Combined

Disability Group	No. of Students	No. of Schools at Intake	after 18 mo.
Health Conservation	109	28	61
Mentally Retarded	65	5	16
"Emotionally Disturbed"	111	5	29
	285	38	106

TABLE 3

Vocational Status of Families of Physically Handicapped Students

A — Initial

Classification	Number	Percent
Prof.-Exec., Semipro., White collar	19	35.2
Manual, Skilled, Semiskilled	27	50.0
Unskilled	8	14.8
Totals	54	100.0

B — Replicate

Classification	Number	Percent
Prof.-Exec., Semipro., White collar	15	27.3
Manual, Skilled, Semiskilled	30	54.5
Unskilled	10	18.2
Totals	55	100.0

C — Combined

Classification	Number	Percent
Prof.-Exec., Semipro., White collar	34	31.2
Manual, Skilled, Semiskilled	57	52.3
Unskilled	18	16.5
Totals	109	100.0

TABLE 4

Classification of Physically Handicapped Students (Unit I) by Current Status of Disability Initial Group Only

Current Status	Experimental Group		Comparison Group		Total	
	No.	Per-cent	No.	Per-cent	No.	Per-cent
Deteriorating	4	14	4	15	8	14.5
Stable	24	86	22	85	46	85.5
Totals	28	100.0	26	100.0	54	100.0

TABLE 5

Medical Assessment of Vocational Potential of Physically Handicapped Children Initial Group Only

Classification	Experimental Group		Comparison Group		Total	
	No.	Per-cent	No.	Per-cent	No.	Per-cent
Good	18	64	14	54	32	59.0
Fair	2	7	2	8	4	7.5
Guarded	5	18	5	19	10	18.5
Poor	3	11	5	19	8	15.0
Totals	28	100.0	26	100.0	54	100.0

TABLE 6

Psychological Testing Data on Unit I E's and C's at Appraisal and Reappraisal

A — Initial

(E's = 26; C's = 24)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	78.6	82.6	93.9	85.8
Performance (Mean)	81.1	79.7	88.3	87.9
Full Scale (Mean)	77.3	78.3	90.8	87.3
Reading (Grade Placement)	4.8	5.9	5.9	6.2
Arithmetic (Grade Placement)	4.8	5.1	5.9	5.8

B — Replicate

(E's = 26; C's = 26)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	80.3	74.2	83.3	83.8
Performance (Mean)	83.1	73.0	87.3	77.6
Full Scale (Mean)	78.8	72.2	84.2	79.0
Reading (Grade Placement)	4.3	4.5	5.0	5.2
Arithmetic (Grade Placement)	4.3	4.4	4.9	4.7

C — Combined

(E's = 52; C's = 50)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	79.1	77.7	88.9	82.5
Performance (Mean)	80.2	72.4	87.8	80.9
Full Scale (Mean)	78.0	75.4	87.4	81.8
Reading (Grade Placement)	4.5	5.1	5.4	5.7
Arithmetic (Grade Placement)	4.8	4.7	5.4	5.2

TABLE 7

Amount and Direction (+ or —) of Total Scale Mean Scores from Appraisal and Reappraisal, by Professional, by E and C (Unit I)

A — Initial

Professional	E			C		
	N	Mean Change	Direction	N	Mean Change	Direction
Counselor (Rehab. Agency)	26	3.2	+	17	4.3	+
Counselor (DVR)	27	3.3	+	23	3.4	—
Psychologist	26	12.6	+	21	5.4	—
Teacher (Public School)	27	2.3	+	21	0.1	—

B — Replicate

Professional	E			C		
	N	Mean Change	Direction	N	Mean Change	Direction
Counselor (Rehab. Agency)	26	5.9	+	21	9.7	+
Counselor (DVR)	26	1.2	—	22	3.2	—
Psychologist	26	3.2	—	26	4.1	—
Teacher (Public School)	26	1.6	—	24	3.7	—

C — Combined

Professional	E			C		
	N	Mean Change	Direction	N	Mean Change	Direction
Counselor (Rehab. Agency)	52	4.2	+	38	7.0	+
Counselor (DVR)	53	0.0		45	3.3	—
Psychologist	52	4.7	+	47	4.7	—
Teacher (Public School)	53	0.4	+	45	1.2	—

TABLE 8

Number of Persons, by E or C, Who Show Increases (+), Decreases (−), No change (0) and Who Were Not Available (NA) for Reappraisal, from Appraisal to Reappraisal (Unit I)

A — Initial

Professional	E (27)				C (23)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	13	9	4	1	9	6	2	6
Counselor (DVR)	16	10	1	0	7	15	1	0
Psychologist	20	6	0	1	7	13	1	2
Teacher (Public School)	14	13	0	0	12	9	0	2

B — Replicate

Professional	E (26)				C (29)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	17	6	3	0	17	3	1	8
Counselor (DVR)	9	17	0	0	9	12	1	7
Psychologist	11	15	0	0	8	17	1	3
Teacher (Public School)	10	16	0	0	9	13	2	5

C — Combined

Professional	E (53)				C (52)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	30	15	7	1	26	9	3	14
Counselor (DVR)	25	27	1	0	16	27	2	7
Psychologist	31	21	0	1	15	30	2	5
Teacher (Public School)	24	29	0	0	21	22	2	7

TABLE 9

Mean Difference and Direction of Estimates of Client's Potential for Job Placement, by E and C, by Professional, Appraisal to Reappraisal (Unit I)

A — Initial

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	1.0	+	2.9	—
Counselor (DVR)	0.9	+	2.2	—
Psychologist	1.0	—	0.	
Teacher (Public School)	0.9	+	2.5	—

B — Replicate

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	3.8	—	1.2	+
Counselor (DVR)	5.8	+	4.5	—
Psychologist	4.8	+	1.0	+
Teacher (Public School)	1.0	—	4.2	—

C — Combined

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	1.4	—	0.7	—
Counselor (DVR)	3.3	+	3.3	—
Psychologist	1.9	+	0.5	+
Teacher (Public School)	0.0		3.4	—

TABLE 10

Mean Difference and Direction of Estimate of Ability To Maintain a Job Once It Is Obtained, by E and C, by Professional, Appraisal to Reappraisal (Unit I)

A — Initial

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	8.7	+	2.9	—
Counselor (DVR)	19.3	+	6.5	+
Psychologist	17.3	+	1.2	+
Teacher (Public School)	3.6	+	5.9	—

B — Replicate

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	4.8	+	0.0	
Counselor (DVR)	1.0	—	13.6	—
Psychologist	5.8	—	11.5	—
Teacher (Public School)	0.0		3.1	—

C — Combined

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	6.7	+	1.3	—
Counselor (DVR)	9.4	+	3.3	—
Psychologist	5.8	+	5.9	—
Teacher (Public School)	1.6	+	4.3	—

TABLE 11

Mean Difference and Direction in Estimates of Realism of Occupational Expectations, by E and C, by Professional, Appraisal to Reappraisal (Unit I)

A — Initial

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	25.0	+	35.3	+
Counselor (DVR)	13.0	—	9.8	—
Psychologist	4.8	+	5.0	+
Teacher (Public School)	No Item		No Item	

B — Replicate

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	6.9	+	13.2	+
Counselor (DVR)	1.5	+	7.4	+
Psychologist	3.7	+	0.0	
Teacher (Public School)	No Item		No Item	

C — Combined

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	9.7	+	15.3	+
Counselor (DVR)	2.4	—	0.3	+
Psychologist	2.9	+	1.4	+
Teacher (Public School)	No Item		No Item	

TABLE 12

Total Number of Contacts Required To Achieve One Followup Interview for Each Physically Handicapped Student

A — Initial

	Phone	Letters	School Visit	Home Visit	Collateral	Total
Experimental	7	14	15	3	30	69
Comparison	2	10	18	11	46	87
Totals	9	24	33	14	76	156

B — Replicate

	Phone	Letters	School Visit	Home Visit	Collateral	Total
Experimental	9	21	7	5	3	45
Comparison	15	16	14	2	3	50
Totals	24	37	21	7	6	95

C — Combined

	Phone	Letters	School Visit	Home Visit	Collateral	Total
Experimental	16	35	22	8	33	114
Comparison	17	26	32	13	49	137
Totals	33	61	54	21	82	251

TABLE 13

Vocational Status of Families of Mentally Retarded Students

A — Initial

	Number	Percent
Professional	3	8.8
Manual (Skilled and Semiskilled)	13	38.2
Unskilled	18	53.0
Totals	34	100.0

B — Replicate

	Number	Percent
Professional	1	3.2
Manual (Skilled and Semiskilled)	8	25.8
Unskilled	22	71.0
Totals	31	100.0

C — Combined

	Number	Percent
Professional	4	6.2
Manual (Skilled and Semiskilled)	21	32.3
Unskilled	40	61.5
Totals	65	100.0

TABLE 14

Degree of Family Disorganization (Unit II)

A — Initial

Classification	Number	Percent
"Moderate" to "High"	12	35.3
"Mild" to "None"	22	64.7
Totals	34	100.0

B — Replicate

Classification	Number	Percent
"Moderate" to "High"	3	9.7
"Mild" to "None"	28	90.3
Totals	31	100.0

C — Combined

Classification	Number	Percent
"Moderate" to "High"	15	23.1
"Mild" to "None"	50	76.9
Totals	65	100.0

TABLE 15

Neurological Status of Mentally Retarded Students
Initial Group Only

Classification	Number	Percent
Evidence of Brain Damage	5	21.0
Immature Nervous System	14	58.0
Normal Neurological Development	5	21.0
Totals	24	100.0

TABLE 16

Appraisal and Reappraisal Ratings of Vocational Expectations of Client C.D.: 3 Raters

Initial Group Only

	DVR Counselor		Psychologist		Rehabilitation Agency	
Rating Area	1962	1964	1962	1964	1962	1964
Placeability	Minimal	Moderate	Moderate	Moderate	Minimal	High
Adjustability	Little	Moderate	Moderate	Moderate	None	High
Potential for Training	Little	High	Moderate	Moderate	Moderate	High

TABLE 17

Psychological Testing Data on E's and C's at Appraisal and Reappraisal

A — Initial

(Unit II; E's = 15; C's = 16)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	61.2	65.7	67.7	70.9
Performance (Mean)	73.8	65.0	78.1	75.7
Full Scale (Mean)	64.4	62.3	71.0	71.2
Reading (Grade Placement)	2.7	3.1	3.0	3.4
Arithmetic (Grade Placement)	3.7	3.8	3.9	3.9

B — Replicate

(Unit II; E's = 16; C's = 10)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	58.6	61.3	70.6	67.0
Performance (Mean)	59.0	67.1	72.9	74.6
Full Scale (Mean)	54.8	60.4	69.6	67.8
Reading (Grade Placement)	2.2	2.7	2.4	3.0
Arithmetic (Grade Placement)	3.8	3.6	4.0	3.9

C — Combined

(Unit II; E's = 31; C's = 26)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	59.9	64.0	69.2	69.4
Performance (Mean)	66.0	65.8	72.2	75.3
Full Scale (Mean)	59.5	61.6	69.9	69.9
Reading (Grade Placement)	2.5	2.9	2.7	3.3
Arithmetic (Grade Placement)	3.8	3.6	3.9	3.9

TABLE 18

Amount and Direction (+ or —) of Total Scale Mean Scores from Appraisal to Reappraisal, by Professional, E and C (Unit II)

A — Initial

Professional	E N	E Mean Change	E Direction	C N	C Mean Change	C Direction
Counselor (Rehab. Agency)	15	2.5	+	8	1.2	—
Counselor (DVR)	16	1.9	—	16	2.9	—
Psychologist	15	2.5	+	16	0.3	+
Teacher (Public School)	15	10.8	—	14	4.8	—

B — Replicate

Professional	E N	E Mean Change	E Direction	C N	C Mean Change	C Direction
Counselor (Rehab. Agency)	16	4.7	—	4	3.1	—
Counselor (DVR)	16	3.2	—	11	3.7	—
Psychologist	16	2.3	—	10	2.4	—
Teacher (Public School)	15	8.9	—	13	3.9	—

C — Combined

Professional	E N	E Mean Change	E Direction	C N	C Mean Change	C Direction
Counselor (Rehab. Agency)	31	1.2	—	12	0.2	+
Counselor (DVR)	32	2.6	—	27	3.4	—
Psychologist	31	0.0		26	0.7	—
Teacher (Public School)	30	10.8	—	27	4.0	—

TABLE 19

Number of Persons, by E or C, Who Show Increases (+), Decreases (−), No Change (0), and Who Were Not Available (NA) for Reappraisal, from Appraisal to Reappraisal, by Professional Doing the Rating (Unit II)

A — Initial

Professional	E (16)				C (19)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	7	7	1	1	4	4	0	11
Counselor (DVR)	7	9	0	0	7	8	1	3
Psychologist	11	4	0	1	8	7	1	3
Teacher (Public School)	2	13	0	1	4	9	1	5

B — Replicate

Professional	E (16)				C (15)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	2	10	4	0	2	1	1	11
Counselor (DVR)	6	10	0	0	3	6	2	4
Psychologist	6	9	1	0	3	7	0	5
Teacher (Public School)	5	8	2	1	5	8	0	2

C — Combined

Professional	E (32)				C (34)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	9	17	5	1	6	5	1	22
Counselor (DVR)	13	19	0	0	10	14	3	7
Psychologist	17	13	1	1	11	14	1	8
Teacher (Public School)	7	21	2	2	9	17	1	7

TABLE 20

Mean Difference and Direction (+ or −) of Estimates of Client's Potential for Job Placement, by E and C, by Professional from Appraisal to Reappraisal (Unit II)

A — Initial

Professional	E Mean Difference	 Direction	C Mean Difference	 Direction
Counselor (Rehab. Agency)	16.7	+	6.2	+
Counselor (DVR)	6.2	−	6.2	−
Psychologist	8.3	+	3.1	+
Teacher (Public School)	6.7	−	3.6	−

B — Replicate

Professional	E Mean Difference	 Direction	C Mean Difference	 Direction
Counselor (Rehab. Agency)	12.5	+	[*]	[*]
Counselor (DVR)	3.1	−	2.3	−
Psychologist	9.4	+	5.0	+
Teacher (Public School)	1.7	+	3.8	+

[*] Only 4 C's returned for Agency's reappraisal.

C — Combined

Professional	E Mean Difference	 Direction	C Mean Difference	 Direction
Counselor (Rehab. Agency)	14.5	+	6.2	+
Counselor (DVR)	4.7	−	4.6	−
Psychologist	8.9	+	3.8	+
Teacher (Public School)	2.5	−	0.0	

TABLE 21

Mean Difference and Direction (+ or −) of Estimates of Ability To Maintain a Job Once It Is Obtained, by E and C, by Professional, Appraisal to Reappraisal (Unit II)

A — Initial

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	6.7	+	3.1	—
Counselor (DVR)	1.6	—	3.1	+
Psychologist	6.7	+	3.1	+
Teacher (Public School)	1.7	—	5.4	—

B — Replicate

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	6.2	—	[a]	[a]
Counselor (DVR)	9.4	—	13.6	—
Psychologist	7.8	+	2.5	—
Teacher (Public School)	1.7	—	5.8	—

[a] Only 4 C's returned for Agency's reappraisal.

C — Combined

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	0.0		2.1	+
Counselor (DVR)	5.5	—	3.7	—
Psychologist	7.3	+	1.0	+
Teacher (Public School)	1.7	—	5.6	—

TABLE 22

Mean Difference and Direction (+ or −) of Estimates of Realism of Occupational Expectations, by E and C, by Professional, Appraisal to Reappraisal (Unit II)

A — Initial

Professional	E Mean Difference	E Direction	C Mean Difference	C Direction
Counselor (Rehab. Agency) ...	11.7	+	12.5	+
Counselor (DVR)	15.6	—	15.6	—
Psychologist	8.3	+	9.4	+
Teacher (Public School)	No Item		No Item	

B — Replicate

Professional	E Mean Difference	E Direction	C Mean Difference	C Direction
Counselor (Rehab. Agency)	3.1	+	*	
Counselor (DVR)	6.2	+	1.1	+
Psychologist	1.6	+	5.0	—
Teacher (Public School)	No Item		No Item	

* Only 4 C's returned for Agency's reappraisal.

C — Combined

Professional	E Mean Difference	E Direction	C Mean Difference	C Direction
Counselor (Rehab. Agency)	7.3	+	10.4	+
Counselor (DVR)	5.8	—	8.8	—
Psychologist	4.8	+	3.8	+
Teacher (Public School)	No Item		No Item	

TABLE 23

Total Number of Contacts Required To Achieve One Followup Interview for Each Mentally Retarded Student

A — Initial

	Phone	Letters	School Visit	Home Visit	Collateral	Total
Experimental	5	15	5	6	21	52
Comparison	3	17	7	15	39	81
Totals	8	32	12	21	60	133

B — Replicate

	Phone	Letters	School Visit	Home Visit	Collateral	Total
Experimental	0	29	9	3	0	41
Comparison	3	16	6	6	2	33
Totals	3	45	15	9	2	74

C — Combined

	Phone	Letters	School Visit	Home Visit	Collateral	Total
Experimental	5	44	14	9	21	93
Comparison	6	33	13	21	41	114
Totals	11	77	27	30	62	207

TABLE 24

Neurological Classification of "Emotionally Disturbed" Initial Group Only

Classification	Number	Percent
Evidence of Brain Damage	6	15
Immature Nervous System	19	47
Normal Neurological Development	15	38
Totals	40	100

TABLE 25[1]

Rehabilitation Center Attendance of "600" School Experimentals

A — Initial
including 2/63 — 6/63 only

	Possible Attendance Days Number	Recorded Absentee Days Number	Recorded Absentee Days Percent
Boys (15)	405	121	30
Girls (11)	319	75	24
Totals	724	196	27

B — Replicate
including 2/65 — 6/65 only

	Possible Attendance Days Number	Recorded Absentee Days Number	Recorded Absentee Days Percent
Boys (17)	532	182	34
Girls (16)	465	125	27
Totals	997	307	31

C — Combined

	Possible Attendance Days Number	Recorded Absentee Days Number	Recorded Absentee Days Percent
Boys (32)	937	303	32
Girls (27)	784	200	26
Totals	1,721	503	28

---

[1] These are approximate due to periodic rather than comprehensive attendance records.

Table 26

Number of "600" School Students Appraised and Reappraised

A — Initial

	Appraised	Reappraised
Experimental	24	24
Comparison	27	18
Totals	51	42

B — Replicate

	Appraised	Reappraised
Experimental	27	27
Comparison	34	34
Totals	61	61

C — Combined

	Appraised	Reappraised
Experimental	51	51
Comparison	61	52
Totals	112	103

TABLE 27

Psychological Testing Data on Unit III E's and C's at Appraisal and Reappraisal

A — Initial

(E's = 24; C's = 13)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	84.8	85.5	86.3	85.8
Performance (Mean)	86.6	83.8	88.9	87.9
Full Scale (Mean)	84.2	83.8	86.6	85.8
Reading (Grade Placement)	5.0	4.3	5.6	4.8
Arithmetic (Grade Placement)	4.5	4.4	5.1	4.7

B — Replicate

(E's = 25; C's = 20)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	82.0	86.9	87.0	91.5
Performance (Mean)	87.3	90.9	86.3	93.2
Full Scale (Mean)	84.1	87.7	85.5	91.8
Reading (Grade Placement)	5.7	6.5	6.1	6.9
Arithmetic (Grade Placement)	5.0	5.4	5.1	5.6

C — Combined

(E's = 49; C's = 33)

	Appraisal		Reappraisal	
	E's	C's	E's	C's
WISC IQ:				
Verbal (Mean)	83.3	86.8	86.7	89.7
Performance (Mean)	87.0	88.4	87.6	91.3
Full Scale (Mean)	83.7	86.1	86.0	89.2
Reading (Grade Placement)	5.4	5.5	6.1	6.9
Arithmetic (Grade Placement)	5.0	5.4	5.1	5.6

TABLE 28

Amount and Direction (+ or −) of Total Scale Mean Scores from Appraisal and Reappraisal, by Professional, by E and C (Unit III)

A — Initial

Professional	E			C		
	N	Mean Change	Direction	N	Mean Change	Direction
Counselor (Rehab. Agency)	20	2.6	+	4	1.9	—
Counselor (DVR)	24	2.4	—	17	0.5	—
Psychologist	23	3.1	+	15	3.3	+
Psychiatrist	23	1.9	+	13	2.8	+
Teacher (Public School)	22	2.1	+	17	3.8	+

B — Replicate

Professional	E			C		
	N	Mean Change	Direction	N	Mean Change	Direction
Counselor (Rehab. Agency)	26	3.8	—	18	6.6	—
Counselor (DVR)	27	11.7	+	34	0.9	—
Psychologist	25	0.3	+	20	0.3	—
Psychiatrist	21	8.6	+	15	7.5	+
Teacher (Public School)		[a]			[a]	

C — Combined

Professional	E			C		
	N	Mean Change	Direction	N	Mean Change	Direction
Counselor (Rehab. Agency)	46	1.5	—	22	7.7	—
Counselor (DVR)	51	5.1	+	51	1.8	
Psychologist	48	2.5	+	35	1.0	+
Psychiatrist	44	5.0	+	28	5.3	+
Teacher (Public School)		[a]			[a]	

[a] Students not available for reappraisal.

TABLE 29

Number of Persons, by E or C, Who Show Increases (+), Decreases (−), No Change (0) and Who Were Not Available (NA) for Reappraisal, from Appraisal to Reappraisal (Unit III)

A — Initial

Professional	E (24)				C (27)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	10	8	2	4	2	2	0	23
Counselor (DVR)	7	13	4	0	6	8	3	10
Psychologist	12	8	3	1	11	4	0	12
Psychiatrist	12	11	0	1	9	4	0	14
Teacher (Public School)	13	9	0	2	8	9	0	10

B — Replicate

Professional	E (27)				C (34)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	10	13	3	1	8	10	0	16
Counselor (DVR)	15	4	8	0	11	12	11	0
Psychologist	12	13	0	2	11	9	0	14
Psychiatrist	18	3	0	6	11	3	1	19
Teacher (Public School)	[a]				[a]			

C — Combined

Professional	E (51)				C (61)			
	+	−	0	NA	+	−	0	NA
Counselor (Rehab. Agency) ..	20	21	5	5	10	12	0	39
Counselor (DVR)	22	17	12	0	17	20	14	10
Psychologist	24	21	3	3	22	13	0	26
Psychiatrist	30	14	0	7	20	7	1	33
Teacher (Public School)	[a]				[a]			

[a] Students not available for reappraisal.

TABLE 30

Mean Difference and Direction of Estimates of Client's Potential for Job Placement, by E and C, by Professional, Appraisal to Reappraisal (Unit III)

A — Initial

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	15.0	+	[a]	[a]
Counselor (DVR)	1.0	+	7.4	+
Psychologist	7.6	—	3.3	—
Psychiatrist	5.4	+	3.8	+
Teacher (Public School)	1.1	—	15.0	—

[a] Only 4 C's returned for Agency Reappraisal

B — Replicate

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	8.7	—	11.1	—
Counselor (DVR)	5.6	+	4.4	—
Psychologist	5.0	—	0.0	—
Psychiatrist	10.7	—	5.0	—
Teacher (Public School)	[a]		[a]	

[a] Students not available for reappraisal

C — Combined

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	1.6	+	8.0	—
Counselor (DVR)	3.4	+	0.5	—
Psychologist	6.2	—	1.4	—
Psychiatrist	2.3	—	0.9	—
Teacher (Public School)	[a]		[a]	

[a] Students not available for reappraisal

TABLE 31

Mean Difference and Direction of Estimate of Ability To Maintain a Job Once It Is Obtained, by E and C, by Professional, Appraisal to Reappraisal (Unit III)

A — Initial

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	2.5	+	[a]	[a]
Counselor (DVR)	4.2	—	7.4	—
Psychologist	1.1	—	0.0	
Psychiatrist	3.3	+	13.5	+
Teacher (Public School)	4.5	—	16.2	—

[a] Only 4 C's returned for Agency Reappraisal

B — Replicate

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	7.7	—	0.0	
Counselor (DVR)	14.8	+	1.4	+
Psychologist	4.0	—	3.8	—
Psychiatrist	16.7	+	13.3	+
Teacher (Public School)	[a]		[a]	

[a] Students not available for reappraisal

C — Combined

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	6.5	—	0.0	
Counselor (DVR)	5.9	+	1.5	—
Psychologist	2.6	—	2.1	—
Psychiatrist	9.7	+	13.4	+
Teacher (Public School)	[a]		[a]	

[a] Students not available for reappraisal

TABLE 32

Mean Difference and Direction in Estimates of Realism of Occupational Expectations, by E and C, by Professional, Appraisal to Reappraisal (Unit III)

A — Initial

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	11.2	+	[a]	[a]
Counselor (DVR)	29.2	—	8.3	—
Psychologist	7.6	—	3.3	—
Psychiatrist	3.3	—	9.6	+
Teacher (Public School)	No Item		No Item	

[a] Only 4 C's returned for Agency Reappraisal

B — Replicate

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	19.3	—	15.0	—
Counselor (DVR)	1.9	—	2.9	+
Psychologist	1.7	+	3.3	+
Psychiatrist	8.9	+	0.8	—
Teacher (Public School)	No Item		No Item	

C — Combined

Professional	E		C	
	Mean Difference	Direction	Mean Difference	Direction
Counselor (Rehab. Agency)	4.8	—	9.4	—
Counselor (DVR)	14.7	—	1.0	—
Psychologist	3.1	—	0.4	+
Psychiatrist	8.2	+	4.0	+
Teacher (Public School)	No Item		No Item	

TABLE 33

Total Number of Contacts Required To Achieve One Followup Interview for Each "600" School Student

A — Initial

	Phone	Letters	Telegram	School Visit	Home Visit	Office Visit	Collateral Contacts	Total
Experimental	35	15	2	1	22	9	26	110
Comparison	45	11	0	0	35	5	17	113
Totals	80	26	2	1	57	14	43	223

B — Replicate

	Phone	Letters	Telegram	School Visit	Home Visit	Office Visit	Collateral Contacts	Total
Experimental	3	30	0	0	6	23	0	62
Comparison	27	52	0	0	15	14	0	108
Totals	30	82	0	0	21	37	0	170

C — Combined

	Phone	Letters	Telegram	School Visit	Home Visit	Office Visit	Collateral Contacts	Total
Experimental	38	45	2	1	28	32	26	172
Comparison	72	63	0	0	50	19	17	221
Totals	110	108	2	1	78	51	43	393

TABLE 34

Socioeconomic Distribution of Families in All 3 Units

A — Initial

	Prof.-Exec., Semiprof.		Skilled, Semiskilled, Manual		Unskilled		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Unit I Physically Disabled	19	35.2	27	50.0	8	14.8	54	100
Unit II Mentally Retarded	3	8.8	13	38.2	18	53.0	34	100
Unit III Emotionally Disturbed	4	8.0	26	50.0	21	42.0	51	100

B — Replicate

	Prof.-Exec., Semiprof.		Skilled, Semiskilled, Manual		Unskilled		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Unit I Physically Disabled	15	27.3	30	54.5	10	18.2	55	100
Unit II Mentally Retarded	1	3.2	8	25.8	22	71.0	31	100
Unit III Emotionally Disturbed	3	4.9	30	49.2	28	45.9	61	100

C — Combined

	Prof.-Exec., Semiprof.		Skilled, Semiskilled, Manual		Unskilled		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Unit I Physically Disabled	34	31.2	57	52.3	18	16.5	109	100
Unit II Mentally Retarded	4	6.2	21	32.3	40	61.5	65	100
Unit III Emotionally Disturbed	7	6.4	56	49.5	49	44.1	112	100

TABLE 35

Estimate of Family Disorganization
All 3 Units

A — Initial

	Highly or Moderately		Mildly or Not		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Unit I						
Physically Disabled	8	14.8	46	85.2	54	100
Unit II						
Mentally Retarded	12	35.3	22	64.7	34	100
Unit III						
Emotionally Disturbed	22	44.0	28	56.0	50	100

B — Replicate

	Highly or Moderately		Mildly or Not		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Unit I						
Physically Disabled	6	10.9	49	89.1	55	100
Unit II						
Mentally Retarded	3	9.7	28	90.3	31	100
Unit III						
Emotionally Disturbed	34	55.7	27	44.3	61	100

C — Combined

	Highly or Moderately		Mildly or Not		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Unit I						
Physically Disabled	14	12.8	95	87.2	109	100
Unit II						
Mentally Retarded	15	23.1	50	76.9	65	100
Unit III						
Emotionally Disturbed	56	50.5	55	49.5	111	100

TABLE 36

Number Reappraised — Initial Group — Spring 1964

Unit	Initial Appraisal		Reappraisal	
I. Physically Handicapped	50		50	
Experimental		27		27
Comparison		23		23
II. Mentally Retarded	35		32	
Experimental		16		16
Comparison		19		16
III. "Emotionally Disturbed"	51		42	
Experimental		24		24
Comparison		27		18
Totals	136		124	

Number Reappraised — Replicate Group — Spring 1966

Unit	Initial Appraisal		Reappraisal	
I. Physically Handicapped	55		48	
Experimental		26		26
Comparison		29		22
II. Mentally Retarded	31		27	
Experimental		16		16
Comparison		15		11
III. "Emotionally Disturbed"	61		61	
Experimental		27		27
Comparison		34		34
Totals	147		136	

TABLE 37

Neurological Classification of Mentally Retarded and Emotionally Disturbed

Initial Group Only

	M.R. Unit II	E.D. Unit III	Total
a. Evidence of Brain Damage	5	6	11
b. Immature Nervous System	14	19	33
c. Normal Neurological Development	5	15	20
Totals	24	40	64

TABLE 38

Mean Reading Grades for Combined Study Sample, Experimental and Comparison

A — Initial

	Appraisal	Reappraisal
Unit I — Physically Handicapped	5.3	6.1
Unit II — Mentally Retarded	2.9	3.2
Unit III — "600" School	4.6	5.2

B — Replicate

	Appraisal	Reappraisal
Unit I — Physically Handicapped	4.4	5.1
Unit II — Mentally Retarded	2.5	2.7
Unit III — "600" School	6.1	6.5

C — Combined

	Appraisal	Reappraisal
Unit I — Physically Handicapped	4.8	5.6
Unit II — Mentally Retarded	2.7	3.0
Unit III — "600" School	5.4	6.0

TABLE 39

Followup Data on the Emotionally Disturbed Students

A — Initial

	Experimental	Comparison
Available for Followup	23	21
Out of School	19	19
Regularly employed (at time of followup)	3	7
Past employment	8	8
Never regularly employed	8	4
No regular job, but paid work on Job Corps, etc.	3	2

B — Replicate

	Experimental	Comparison
Available for Followup	23	24
Out of School	20	22
Regularly employed (at time of followup)	3	8
Past employment	8	11
Never regularly employed	9	3
No regular job, but paid work on Job Corps, etc.	2	3

C — Combined

	Experimental	Comparison
Available for Followup	46	45
Out of School	39	41
Regularly employed (at time of followup)	6	15
Past employment	16	19
Never regularly employed	17	7
No regular job, but paid work on Job Corps, etc.	5	5

TABLE 40

Initial and Replicate Groups by Ethnic Distribution

A — Initial

	White		Nonwhite		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Unit I Physically Disabled	32	64.0	18	36.0	50	100
Unit II Mentally Retarded	3	8.6	32	91.4	35	100
Unit III Emotionally Disturbed	4	7.8	47	92.2	51	100

B — Replicate

	White		Nonwhite		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Unit I Physically Disabled	29	52.7	26	47.3	55	100
Unit II Mentally Retarded	4	12.9	27	87.1	31	100
Unit III Emotionally Disturbed	9	14.8	52	85.2	61	100

C — Combined

	White		Nonwhite		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Unit I Physically Disabled	61	58.1	44	41.9	105	100
Unit II Mentally Retarded	7	10.6	59	89.4	66	100
Unit III Emotionally Disturbed	13	11.6	99	88.4	112	100

APPENDIX A

HANDICAPPED STUDENTS RESEARCH PROJECT

Interviewer ....

FOLLOWUP SCHEDULE

Date of Interview ....
(Month) (Day) (Year)

Study Group ....

Unit .... Group E; C (circle one)

Name .... Sex (circle): M; F

Address .... Phone ....

Place of Birth .... Birthdate ....

Number of Years in N.Y.C. ....

A. Employment Status (if not in school)

1. When did you leave school? ....
2. Why did you leave school? ....
....
....
3. Are you working now? Yes...... No...... (if No, skip to Question No. 16)
4. What kind of job is it? (gross job description)
....
....
....
5. Date job was obtained? ....
6. Pay (before taxes, by week or by hour, whichever appropriate)
....
7. Hours ....
8. Steady, Seasonal, or Temporary (circle one)
9. How did you find this job?
....

10. How well are you doing at this job?
............Very good ....Better than average
............Just average ....Not very well

11. Have you had any promotions or wage increases?
Promotions: ....Yes ....No
Wage Increases: ....Yes ....No

12. How much ability do you think it takes to do the kind of work you do?
............A lot of ability ....Some ability
............A little ability ....No ability

13. Do you like this job?
............Very much ....Somewhat
............Not too much ....Not at all

14. What are your chances for advancement or promotion on this job in the next year?
............Pretty good ....Maybe ....Not good

15. What are your chances for a raise in the next years?
............Pretty good ....Maybe ....Not so good

* * * * * * *

16. Have you ever worked since you left school? ....Yes ....No

17. Get information on: (a) number of jobs held; (b) duration of each job; (c) why left? (Write on back, if necessary)

18. (If not working) Are you looking for work? ....Yes ....No
(If no) Why not? ....

19. What kind of job would you like to have?

20. (If not working) Source of support:
............Family ....Unemployment insurance
............Relief ....Other

21. How have you gone about looking for work? (Explore)

22. Have you ever heard of:

............State Employment Service
............Mobilization for Youth
............Youth Employment Program
............JOIN
............Haryou-Act
............Other

23. Would you be interested in getting help from any of these organizations in finding a job?

....
....
....

24. Since you left school, have you:

a. Had any other vocational training: ....Yes ....No
b. Been at any other agency: ....Yes ....No
Comments: ....
....
....

B. Family Relations

1. Who are you living with at present? (Indicate roles, e.g., father, stepfather, mother, aunt, etc.) [If not living with relative skip to No. 5.]

....
....

2. (If living with father or father-surrogate) How do you get along with ....?

.........Very well ....Pretty well ....Not too well ....Badly

3. (If living with mother or mother-surrogate) How do you get along with ....?

.........Very well ....Pretty well ....Not too well ....Badly

4. (If living with other relative) How do you get along with ....?

.........Very well ....Pretty well ....Not too well ....Badly

5. (If not living with relative) Who are you living with now?

.........Alone ....A Friend(s) ....Spouse

6. How do you get along with......................?

.........Very well ....Pretty well ....Not too well ....Badly

7. Have there been any important changes in your family during the past year? (Probe for major changes, e.g., deaths, relief status, trouble with Courts or Law, etc.)

....
....
....
....

C. Interpersonal Relations
(Other than Family)

1. Do you have many friends?

a. Same sex friends:
.........Enough ....Too few ....None

b. Opposite sex friends:
.........Enough ....Too few ....None

2. (If not married) Do you go out on dates?
.........Enough ....Too few ....None
3. Do you go to parties?
.........Enough ....Too few ....None
4. (If not married) Are you going steady with anyone?
.........Yes ....No
5. What do you do with your spare time? (Use codes: 1. almost every day, 2. once or twice a week, 3. once or twice a month, 4. rarely or never)
.........Listen to the radio
.........Watch TV
.........Read magazines or newspapers
.........Read books
.........Go to the movies
.........Go to sport events
.........Go to church (synagogue)
.........Participate in athletics
.........Have hobbies
.........Play an instrument
........."Just hang around"
.........Play cards
.........Other (Specify):
....
....

6. Do you feel you don't have much to do with your spare time?
.........Yes ....No (Get comment, if possible):
....
....
....
....
....
....
....
....

D. School

(For those still in school)

1. How are you getting on in school?
.........Very well ....Pretty well ....Not too well ....Badly
2. Do you expect to get a high school diploma?
.........Yes ....No ....Don't know
3. (If yes to No. 2) Do you expect to go on to:
.........College ....Business school ....Trade or technical school
.............None ....Type of school
4. (If no to No. 2) Would you want any special schooling?
.........Business school ....Trade school ....None
Other ....
5. Do you think you want any special help in order to do better in school?
.........Remedial Reading ....Remedial Math ....None
Other ....

E. Miscellaneous

1. During the last year, have you had any serious illness?

.........Yes ....No

(If yes, explore for nature, whether client hospitalized, any residuals, etc.)

....

....

....

....

....

2. Have you had any trouble with the Law or the Police? (Explore, while assuring confidentially) ....

....

....

....

F. Reactions to Program

(For clients who dropped out before end)

1. Why did you drop out?

....

....

....

....

2. Were there things about the program that you liked?

....

....

....

....

3. Were there things you didn't like?

....

....

....

....

G. Interviewer's Impressions

(As client might impress a prospective employer)

1. Grooming
.........Well groomed
.........Above average
.........Below average
.........Poor
Comment ....

2. Physical attractiveness
.........Very attractive
.........Above average
.........Unattractive
.........Below average
Comment ....

3. Ability to communicate
   ....Easily understood
   ....Occasionally has difficulty in getting meaning across
   ....Considerable difficulty in getting meaning across
   ....Very hard to understand

4. Comprehension
   ....Has no difficulty in understanding you
   ....Occasionally needs explanations, etc.
   ....Frequently needs explanations, etc.
   ....Great difficulty in understanding you

5. How aware would the average employer be that the individual has physical, mental or emotional problems?

	Physical	*Mental*	*Emotional*
Highly aware:	....	....	....
Somewhat aware:	....	....	....
Unaware:	....	....	....

6. Additional impressions

....
....
....
....
....
....
....
....
....

7. Any other relevant information known about the client.

....
....
....
....

APPENDIX B

Counselor Scale I: Initial Interview and Home Visit

A. *Family Attitudes to Handicapped Child*

1. Degree to which family actively supports (or impedes) child's efforts to cope with general problems of living:
   ....Strongly supportive
   ....Moderately supportive
   ....Mildly supportive
   ....Neutral; neither supportive nor impeding
   ....Mildly impeding
   ....Moderately impeding
   ....Strongly impeding

2. Degree to which child has been prevented from engaging in activities appropriate for nonhandicapped children because of family overprotection:
   ....High
   ....Moderate
   ....Mild
   ....Not significant or absent

3. Degree to which child has been prevented from engaging in activities appropriate for nonhandicapped children because of family rejection:
   ....High
   ....Moderate
   ....Mild
   ....Not significant or absent

4. Degree to which family expectations for child are unrealistically high or low:
   ....Very much higher than is appropriate
   ....Moderately higher
   ....Mildly higher
   ....Appropriate; neither too high nor too low
   ....Mildly lower than it should be
   ....Moderately lower
   ....Very much lower

5. Attitude of family to issue of whether child should be committed to an institution:
   ....Strongly in favor
   ....Moderately in favor
   ....Mildly in favor
   ....Neutral
   ....Mildly opposed
   ....Moderately opposed
   ....Strongly opposed

6. Attitude of family to DVR program:
............Strongly in favor
............Moderately in favor
............Mildly in favor
............Neutral or indifferent
............Mildly opposed
............Moderately opposed
............Strongly opposed

B. *Characterization of Family as a Psychosocial Unit*

7. Degree to which family unit is socially disorganized, i.e., provides an unfavorable home atmosphere for ordinary child rearing:
............Highly disorganized
............Moderately disorganized
............Mildly disorganized
............Not disorganized

8. Degree of activity of father in relation to child-rearing practices:
............High activity
............Moderate activity
............Minimal activity
............No activity

9. Degree of activity of mother in relation to child-rearing practices:
............High activity
............Moderate activity
............Minimal activity
............No activity

10. Degree of activity of father in relation to child's problems and needs:
............Very highly involved
............Moderately involved
............Mildly involved
............Not involved

11. Degree of activity of mother in relation to child's problems and needs:
............Very highly involved
............Moderately involved
............Mildly involved
............Not involved

12. Economic status of family by occupation of father (or mother, if latter is sole support):
............Professional and executive
............Semiprofessional and managerial
............White collar (Clerical, retail sales, etc.)
............Skilled manual
............Semiskilled manual
............Slightly skilled manual
............Unskilled manual

C. ***Attitudes of the Handicapped Child***

13. How does the child perceive the father in relation to himself:
............Highly positive figure
............Moderately positive
............Mildly positive
............Neutral or indifferent
............Mildly negative
............Moderately negative
............Highly negative

14. How does the child perceive the mother in relation to himself:
............Highly positive figure
............Moderately positive
............Mildly positive
............Neutral or indifferent
............Mildly negative
............Moderately negative
............Highly negative

15. How does the child perceive his siblings in relation to himself:
............Highly positive figure
............Moderately positive
............Mildly positive
............Neutral or indifferent
............Mildly negative
............Moderately negative
............Highly negative

16. How does the child perceive his nonfamilial age peers in relation to himself:
............Highly positive figure
............Moderately positive
............Mildly positive
............Neutral or indifferent
............Mildly negative
............Moderately negative
............Highly negative

17. To what degree does the child perceive himself as damaged:
............Very
............Moderately
............Mildly
............Not at all

18. Degree to which the child's occupational expectations are unrealistically high or low:
............Very much higher than is appropriate
............Moderately higher
............Mildly higher
............Appropriate; neither too high nor too low

3

............Mildly lower than it should be
............Moderately lower
............Very much lower

D. ***Assessment by Counselor of Vocational Potential of Child at Employable Age:***

19. Placeability, i.e., amount of effort required to be placed on a job regardless of whether the job is kept:
............Highly placeable; comparatively easy
............Moderately placeable; position can be found, but with some difficulty and delay
............Minimally placeable; great difficulty in placing; includes limitation to sheltered employment
............Unplaceable

20. Adjustability, i.e., if a job can be found, client will be able to meet job demands and maintain employment:
............High employment maintenance (employed at least 75 percent of followup period)
............Moderate employment maintenance (25-74 percent)
............Low employment maintenance (1-24 percent)
............No maintenance (employed only for day or two at a time)

21. Potential for Training, i.e., individual will be rendered employable through specific vocational training:
............High likelihood
............Moderately high likelihood
............Little likelihood
............No likelihood

APPENDIX C

NEW YORK STATE EDUCATION DEPARTMENT
Division of Vocational Rehabilitation

HANDICAPPED STUDENTS RESEARCH PROJECT

Outline for Agency Reports (At end of each semester)

Objective is to write a brief narrative report on progress of client in the adjustment training program. Focus should be on both assets and liabilities of client as these change (if they do) during the project period. The report is to be made three (3) times: at end of 1st semester, at end of 2d semester, and at end of total service. The final report should cover entire service period and constitute a summary of client progress. The reader of these reports should be able to make judgments concerning the following issues:

(1) How "far" is the client from being able to meet ordinary work pressures and work demands?
(2) What progress has the client made during preceding period in closing the gap?
(3) What are the main work problems of the client?
(4) What plans should be adopted to cope with these problems?
(5) What progress has been made in areas not related to work per se?
   a. In the area of social competence with peers?
   b. In the area of family adjustment?
   c. In appearance, dress, and deportment?
   d. In self-image and self-acceptance?
   e. In general emotional maturation?

For clarity, the report should be organized under the following

I. Work Performance
   A. Quantity
      Relation to acceptable industrial standard
   B. Quality
      Relation to acceptable industrial standard
II. Supervision
      Does client need more than the ordinary amount of supervision? Under what kind of supervision does client work best:

benign, matter-of-fact, controlling? In what areas of work is supervision most needed? (See I, above.) What problem does client have in accepting and using supervision?

III. Peer Relationships

Does client display appropriate relationships with co-workers? If not, what are the problems?

IV. Meaning of Work

Motivation? Interest? Values?

V. Work Behavior

What are client's main work problems? Punctuality? Distractability? Low Output? Poor Quality?

Inappropriate attitude to supervisor? Disturbing peer relationships? Others?

VI. Behavior Not Specifically Related to Work

Has program helped client to form positive social relationships in the community and school? Is he seen as a more effective and adequate member of the family setting? Are there any changes to be reported in dress and deportment? Has the client been helped to mature as a person, in relation to such issues as impulse-control, feelings of independence, self-acceptance? What are the main problems you see in these areas which require further attention?

In writing this report, it should be noted that the Project is interested in brief, concise statements, which are capable of being coded and classified. On the other hand, the Project wishes each Agency to utilize whatever latitude it wishes in developing what is an essentially *qualitative* report of progress: What was the client like at the beginning of the period? What are his chief characteristics now? Where is he going? It is felt that this material can be an important supplement to the various scales and can lay the basis for individual evaluation on a case-by-case basis. At the same time, we wish to emphasize that we are not requesting from the Agencies long and detailed case histories. The writer should aim for *compact* statements under each of the six headings, emphasizing the chief characteristics and problems.

[Submit all reports to Morris Klapper, Project Director]

Reports are due:

1. July 10, 1963
2. February 10, 1964
3. July 10, 1964

APPENDIX D

Evaluation of Nervous System in Mentally Retarded and "600" School Students in the Handicapped Students Research Project

By David Biser, M.D.

Introduction:

A neurological screening was done on a total of 40 students in the group of students with behavior problems attending the "600" schools and a total of 24 students in the mentally retarded group. The "600" school group included 20 girls and 20 boys. The mentally retarded group included 17 girls and 7 boys.

The screening was approached with a view to compare the two groups with one another. The two groups differ from one another in two respects. The mentally retarded are so designated in that on group testing their total IQ score was rated below 70, whereas, the "600" school group all scored above this level on group testing. The "600" school group differed in the existence of a severe behavior disturbance in contrast to relatively minor behavior problems in the mentally retarded group. The common denominator that characterizes both groups is the presence of a severe retardation in learning.

It was therefore decided that the neurological evaluation should be approached not simply for the purpose of determining if, or which children showed objective signs of "brain damage," but that there be a more detailed appraisal to determine, if possible, the maturity or functional organization of the nervous system in each child. The children are, therefore, categorized as:

(1) Showing evidence of brain damage
(2) Showing neurological signs of immature nervous system development
(3) Normal degree of development.

Description of Examination:

The evaluation consisted of a neurological examination with no special studies having been done to this date and without a neurological history with the exception of some children who volunteered specific subjective symptoms.

In addition to the routine neurological examination, particular attention was given to the following:

The child was carefully observed for any physical stigmata. This included any asymmetry or deviation of skull size or shape, peculiar facial structure, and peculiarities of digits.

The postural organization was carefully appraised. This examination included modifications of techniques as elaborated by L. Bender, P. Twitchell, de Hirsch, Goldfarb, etc., in their examination of children. Included are such observations as independence of passive head movement from body movement, positioning and deviation of outstretched arms, independence of head movement from eye movement, significant lordosis when arms are outstretched with eyes closed, marked flexion or extension of head or turning of head to one side with eyes closed, muscle tone, etc.

Under the category which may be described as kinesthesia were included such observations as spontaneous involuntary muscle activity, synkinetic movements, asymmetry of arm movement in walking. Particular attention was paid to choreiform movements by observations and palpation of muscles as described by Prenzl and Anderson in their study of hyper-kinetic children and children with learning retardation.

Under the category of eye motility are included any strabismus, exophoria or exotropia, lag or marked weakness of one or both eyes in convergence, tonic positioning of eyes when closed and lids are passively elevated. Also included are ability to fix gaze with passive head turning, with head in various positions and fixation in active gaze on command or following. The examination for tonic deviation of eyes is a modification of examination of observation technique as described by Cogan.

Under the category of distal motility is included the rate and rhythm of opposition of thumbs to individual fingers of each hand with eyes closed, amplitude and tone of opening and closing fists, alternate supination and pronation of hands, and flapping movements of hands. Particular attention is given to the independence of finger movements from proximal movement at elbow and shoulder joints and positioning of extremities in performing these tests. Observation of independence of distal movements from proximal activity has been described by Gessell and others as part of neurological maturational process.

Laterality includes observations of hand preference in pointing to body parts, preferred side of body in pointing to body parts, tendency to identify body parts by crossing over or by ipsilateral identification spontaneously and on command. This includes orientation in terms of a child's ability to recognize examiner's corresponding hand, and ability to correctly name "right" and "left" on the examiner's body parts and himself. These observations are modifications of examination techniques of Benton, Drews, and others.

Finger localization also is a modification of Benton's examinations for finger localization. It includes ability of child to point to finger tips of two fingers which are touched simultaneously or in sequence, and ability to transfer localization to opposite hand with eyes closed.

There were other examination techniques in addition to the routine neurological examination, including ability to perform bilateral circular movements going in one direction and performing circular movements with one hand and then the other with instructions to continue movements in same direction with opposite hand. Notation was made if there was reversal of direction or any significant deviation from circular pattern of movement. Other observations, such as preferred direction of body rotation, preferred foot in hopping, gaze preference in bilateral finger to nose test, preferred direction of movement of mental image of midline object, etc., may be of interest, but are not included in the results of this evaluation. The categories described, in addition to the routine neurological examination, were found to be the criteria which gave the most valuable information in terms of overall functioning of the nervous system.

The classification of brain damage vs. immaturity of nervous system development is not meant to construe severity of malfunction. As mentioned in Goldfarb's book "Childhood Schizophrenia," the neurologist is faced with the problem of seeing what may be profound disturbance of nervous system functioning where classical signs of brain damage are lacking. He is not able to delineate a specific location of brain damage, a specific cause or specific system of nervous system pathways. Yet, there may be greater disorganization than in the child classified as "brain damaged." One may find a completely normal neurological examination with the exception of, for example, an extensor response to plantar stimulation, yet the child would be classified as brain damaged. A child may, on the other hand, show numerous disturbances of posture, kinesthetic activity, eye movement, disorientation of laterality, etc., so that he would be likely to have greater repercussions in his learning ability than a child classified as brain damaged. Children in whom there were equivocal signs indicative of brain damage, for example an inconsistent equivocal extensor response, cannot be categorically spoken of as being brain damaged. Neither can such a child be designated "immaturity of nervous system development;" he would be placed in a normal category.

An attempt to spell out the examiner's impression of the severity of malfunction is offered by rating the children in a scale from 0 to 4. Zero designates a normal neurological examination in terms of examiner's impression of maturity for the student's age. A +4 would indicate severe disturbance of function as judged by the examination, regardless of whether there is, or is not, brain damage.

It should be emphasized that rigid criteria were used in determining whether the child was placed in the category of brain damage. The category of immaturity of nervous system development suffers from the fact that this study was not a comparison or controlled study with a "normal" group of children. The examining neurologist used a modification of examination techniques generally applied to young children. In some categories it may well be that the criteria used were too rigid, and that a similar instance of "immaturity" might be found in a normal population group. Nevertheless, the findings are of significance in terms of a comparison of the mentally retarded and "600" school groups.

The evaluation of brain damage is based solely on the findings of one examination, without the benefit of a detailed history of prenatal, perinatal, and early childhood development. It seems likely that with an elaborate history more children would be included under this category, especially where equivocal neurological findings were found.

Results:

Forty students (20 girls, 20 boys) of the "600" school group and 24 students (7 boys, 17 girls) of the mentally retarded group were examined. Six of the 40 "600" school group (3 boys, 3 girls) and 5 of the 24 mentally retarded group (1 boy, 4 girls) showed objective findings indicative of some nervous system damage.

"600" School Group:

Among the boys, one student, C.B., showed a consistent extensor response of the left big toe in testing for Oppenheim's sign, in contrast to a consistent downward response on the right side. Student volunteered information that there had been periodic short lapses of consciousness on the average of once monthly, with a temporary loss of memory for what would have occurred during these lapses. There were suggestions of olfactory hallucinations or illusions (smell of burnt rubber), also a history of former severe right-sided head pain.

L.C., who has a right-handed preference in daily activities but who consistently uses his left in writing, showed extension and fanning of toes on the left when testing for Babinski and Oppenheim sign, in contrast to a consistently downward response on the right side. He was virtually unable to converge with either eye in following a moving object brought toward his nose. There were piano-type movements of the fingers when upper extremities were extended, and slight jerky movements of the facial muscles. There was prominent spooning (wrist flexion with hyperextension of digits) with arms outstretched. In rotating he turned very rapidly with deviation of arms to one side in turning to the left, with no such deviation noticeable in turning to the right.

J.K., showed a virtual paralysis of the right upper extremity with a sensory loss extending from C5 through C8. To his knowledge this was present since birth. The objective findings strongly suggested damage to the right brachial plexus. In addition, there was skull asymmetry with mild skull depression in the left parietal region as compared with the right. Funduscopic examination showed a prominent pale, avascular area in the center of the right disk, and it appeared that the only vessel going to the center of the disk was a large superior vein. Veins of the left disk appeared very prominent. There seemed to be less prominence of the right naso-labial fold as compared with the left. The objective findings showed a definite pathology of the brachial plexus and, although there was no definite evidence of any brain damage, the above-mentioned findings raise a strong possibility of some intercranial pathology.

Among the girls, A.D. showed a definitely more active triceps, biceps, and radial periosteal reflex on the left side as compared with the right, and a left knee jerk consistently more active than the right. Plantar response on the left was not as vigorous as on the right. She does many activities with her right hand but apparently shows more of a preference for her left hand.

E.C. showed very prominent spontaneous and involuntary movements. There was pronounced irregular movement of the outstretched fingers and up and down jerking movements of the proximal portion of the outstretched upper extremity. There was considerable perioral muscular activity and considerable involuntary tongue movement.

There were palpable clonic jerks of muscles of the posterior neck region and similar palpable jerks of the biceps muscles and tendons. There was an inability to consistently fix her gaze when her head was passively rotated. In attempted convergence, the right eye moved out. There was prominent twisting and tilting of the head in walking. There was much synkinetic muscular activity, such as in doing thumb to finger apposition on one hand. There was overflow to the opposite hand, with quivering movements of the mouth and tilting of the head.

C.J. showed prominent involuntary movement. There was involuntary jerking of the body musculature, and of the head on passive head movement. In gazing laterally, there was also considerable irregular head movement. There was very little movement on attempted convergence of the eyes. She was very sensitive to light, so that pupillary reactions and funduscopic could not be done. There were postural aberrations — her arms drifted downward rapidly, there was marked spooning at the wrist joints and her digits showed a structural deviation, and there was a turning outward of the distal portions of her fingers. This was also present in the toes. The left knee and ankle jerks were more active than on the right.

Mentally Retarded:

R.G. showed numerous and very gross abnormalities of nervous system development. His skull appeared narrow as compared with facial width, ears were long and "rabbit-like." Digits were very short and stubby compared with body size. Obese and rather eunuchoid appearance. Skin rather flabby and soft. There was marked restriction of upward gaze, prominent saccadic movement of eyes, prominent lateral displacement of the left eye (virtually no vision except to light in left eye, severe disturbance of acuity in right eye). There was considerable awkwardness in performing distal movements. Movements generally are excessive in rapidity and force and tend to be imprecise. There was marked postural disturbance. In passive head movement, there was very marked simultaneous turning of the entire body. There was poor establishment of hand preference and there was disorientation of laterality (identification of right-left) for the environment.

M.G., a girl, showed much fine movement of fingers in walking, with sudden thrusts of wrists in finger extension. There was irregular shifting movement of the head. There were jerky movements of muscles in the forehead throughout the examination, and grimacing peri-oral movements. There were prominent piano-type movements of the outstretched fingers. Her outstretched arms drooped after rotating. There were fine irregular movements of the eyes in left and right lateral gaze. She was unable to keep her eyes in a left lateral gaze position with eyes closed; the eyes deviated to the right when closed. There was much overflow of movement into the fingers of the opposite hand in doing unilateral thumb to finger opposition. Pupils were very sluggish. No deep tendon reflexes could be elicited, even with reinforcement.

A.M., a girl, showed obvious physical stigmata, including snout-like appearance of mouth, asymmetry of facial structure, and a diminished size of paretic right upper extremity. Her body turns completely in testing lateral eye movements by passively rotating her head. There was virtual paralysis of the right hand and fingers. There was complete right-left confusion for herself and for her environment. Speech was dysarticulate. There was an apparent hearing defect bilaterally when tested by whispered voice. She could not perform tandem walking. She was irritable and tolerated the examination poorly.

V.G., a girl, showed considerable pursing movements of the lips and surrounding peri-oral muscular activity. With arms outstretched, her arms moved promptly downward when she rotated. There was markedly diminished resistance to passive rotation of the head with simultaneous turning of body. There was frequent misplacement on either hand ipsilaterally for finger localization and frequent reversal of sequence both ipsilaterally and contralaterally. She was unable to perform thumb to finger opposition consecutively, over and over again. She was unable to perform tandem walking with her eyes closed. She walked with a slightly shuffling gait in that her toes were placed on the ground before her heel.

C.R., a girl, showed considerable flexion of wrists with arms outstretched. The left eye did not converge. At another time, the right eye failed to converge. There was much overflow into the opposite hand in doing unilateral thumb to finger opposition. She was very inconsistent in identification of her own right and left and similarly, inconsistent in right and left identification of the environment. There was a definite extensor response to plantar stimulation on the right side. There was a significantly lower facial asymmetry with virtual absence of the right nasolabial fold.

The examining neurologist attempted to rate each child on a scale from 0 to 4, the numbers ranging from "normal" to "severe disturbance of nervous system functioning" of each child. This was based purely on the results of the neurological examination. It is obvious that a child may show little in the way of objective abnormal signs and yet have marked disturbance of function. For example, one student, C.B., was considered to show objective signs of brain damage in that there was a pathological reflex unilaterally, so that he was given a rating of 2. The student has suffered from lapses of consciousness, has had suggestive olfactory hallucinations, which strongly suggest some seizure disorder, so that his functioning in terms of learning and behavior may be quite severe as a result of nervous system pathology, but this cannot be determined by the neurological examination alone. These ratings can only be meaningful when the examination itself showed significant objective abnormalities. The presence of negative or minimal findings in no way are meant to convey the impression that there may not be greater disturbance of functioning.

Among the students with behavioral disturbances one student, C.B., was given a rating of 2, L.C. 2, and J.K. 2. Among the girls in this group, A.D. was rated as 2, C.J. 3, and E.C. 3.

Among the mentally retarded students, R.G. was rated as 4, A.M. as 4, M.G. 3, V.G. 3, and C.R. as 3.

Immaturity of Nervous System:

Of the 40 students with behavioral disturbances, 19 (8 boys and 11 girls) showed objective signs of what the neurologist interpreted as being indicative of immaturity of nervous system development. Among the 24 mentally retarded, 14 (4 boys and 10 girls) were so designated. Most of these students were given low ratings of one or two. Students were not designated as showing immaturity of development unless there was some objective finding in more than one of the categories previously mentioned (postural organization, kinesthesia, eye movements, etc.). Again, it is emphasized that these findings may have greater significance, but in the absence of a control group, it may well be that some of the criteria designated as not normal would be found in a normal control group.

A complete breakdown for each child under the category of immaturity will not be given here, but examples will be given to illustrate criteria for placing a child in this category and also to illustrate the basis for rating from 0 to 4.

M.C. was rated at 3. "In walking head is consistently limply tilted to one side. No arm swing in walking, arms pronated forward and close to her body. Irregular forward thrust of the left arm. Marked postural aberration, often tends to or must support her head with her hands when her eyes are closed. Very marked lordosis with arms outstretched and eyes closed, wrists limply flexed, elbows at side in flexed position. In active gaze there is uneven eye movement — head had to be held by examiner to satisfactorily allow her to move her eyes, otherwise she tended to discontinue attempts at gaze in various directions. Left eye converges, right eye does not. In hopping, her movements are very rapid. In thumb to finger opposition, she cannot maintain a distinct rhythm. Deep tendon reflexes not elicited in upper extremities. Very slight knee jerk elicited in lowers, only with reinforcement. In testing passive resistance by holding her wrists and pressing against her finger tips, her resistance was primarily with her shoulders and not with her fingers."

The examining neurologist felt that there simply was no clear-cut objective finding that could be considered as indicating definite brain damage. It could be seen, however, that her nervous system functioning was "not normal." On the basis of the examination alone, it was felt that she would very likely show much more disturbance in the area of learning than some of the students designated as brain damaged. It may well be that she has suffered some specific damage, but this cannot be categorically stated on the basis of the neurological examination.

N.L., a girl in the mentally retarded group, was rated as 1. "In passively rotating head there is consistent greater movement of the arm opposite to the side of turning so that the opposite arm always moved closer to the arm toward which the head was rotated. She is left-handed. There was usually a reversal of right-left identification of body parts of the examiner, but no such reversal on her own body. In finger localization she usually showed a reversed sequence when fingers were touched in succession going toward the midline, that is, with her palms downward going in the direction from lateral to medium. In performing distal movements such as pronation-supination of hands, her thumbs were held in a flexed and adducted position and her movements tended to be to and from rather than supination and pronation. With her eyes closed and lids gently lifted, eyes were seen to be in a converged position."

The examiner considered that some of these findings, particularly the reversal of right and left, were immature for a 16-year-old girl. Actually, the reversal of right and left may have greater consequences for her learning, and in particular, her reading ability. The rating of 1 represents a minimal estimate of the degree of interference of learning as a result of nervous system immaturity.

Of those 19 children classified as neurologically immature, of the 40 behaviorally disturbed group, 2 were rated as 3. Of the 14 children designated as showing neurological immaturity, of the 24 mentally retarded group, 2 were given a rating of 3.

It should also be mentioned that in children who were not designated as showing signs of brain damage and immaturity, there were various findings that could be called immature, but the examining neurologist did not feel the total picture warranted designating a child under this category, especially without a control study.

For example, M.S. showed no abnormal or immature findings in the examination, except for a very consistent and very obvious difficulty in finger localization. In fact, his difficulty in this area was greater than many of the children who were classified as being neurologically immature. Since this was the only objective neurological finding, he was called "normal."

Other examples are: P.B., a girl in the behaviorally disturbed group, showed a lag of the right eye in convergence and inability to perform bilateral circular movements going in the same direction simultaneously. C.J., a girl in the behaviorally disturbed group, showed marked divergence of the eyes when the eyes were closed and lids were passively raised, and walks with her head held in a flexed position.

Comparison of "600" Schools and Mentally Retarded Groups:

The most striking objective findings were the very high number of what the examining neurologist considered as some abnormality of eye movements in both groups. A total of 24 of the 40 "600" school students and 15 of the 24 mentally retarded students showed some such aberrant manifestation of ocular movement. It is the neurologist's impression that this is considerably higher than would be found among a random population of students of this age.

Another striking finding was the presence of depression of deep tendon reflexes in the lower extremities, asymmetry or the presence of equivocal pathological reflexes. Among the 40 "600" school students, 22 were thus designated. Among the 24 mentally retarded students, 16 were thus designated. Four of the behaviorally disturbed students showed asymmetry in comparing reflexes in right and left extremities. Five among the mentally retarded students showed either asymmetry or equivocal pathological reflexes.

There was also a large number of students who showed difficulty with finger localization. Nineteen of the 40 "600" school students and 15 of the 24 mentally retarded students were thus designated.

A reversal of right and left for the environment or confusion were marked. Inconsistency for right and left was shown by 5 of the 40 "600" school students (all girls). Among the 24 mentally retarded students, 9 (7 girls, 2 boys) were so designated.

Four of the 40 "600" school students showed what the examiner considered some physical stigmata; 9 of the 24 mentally retarded students showed this.

Sixteen of the 40 "600" school students were felt to have some deviation under the category of postural organization; 11 of the 24 mentally retarded students showed this.

Ten of the 40 "600" school students showed some disturbance of distal movements; 11 of the 24 mentally retarded students demonstrated this.

Under the category of kinesthesia, that is, abnormal spontaneous movement, synkinetic movement or some abnormality of muscular activity was found in 6 of the 40 "600" school students and 8 of the 24 mentally retarded students.

In summarizing, it appeared that the similarity between the two groups was more striking than the differences. For almost all categories, the mentally retarded group showed a somewhat higher number of abnormalities, including number of students designated as brain damaged and neurologically immature. However, the general pattern of distribution of abnormalities seems to be rather similar in the two groups. That is, in those criteria which the mentally retarded showed a high number of aberrations, the behaviorally disturbed group showed a high number of abnormalities, likewise. The examining neurologist found the number of abnormalities for a group designated as behaviorally disturbed to be higher than would be expected. In other words, the neurologist was impressed with the fact that among these two groups of students who differed in respect to behavior and to intelligence as measured by group testing, one should look closely at the common factor of learning retardation as showing possible correlation with the common finding of a high number of neurological deviations common to both groups.

As has been mentioned, the neurologist may have been too rigid in defining "normal" or "mature" in certain categories, especially categories of finger localization and eye movement, so that some of these findings may not have the significance as has been interpreted in this report. That is, some of these findings may not be indicative of nervous system immaturity for this age group. This can only be determined by a comparison study.

Discussion:

A group designated as behaviorally disturbed and a group designated as mentally retarded showed one symptom in common, namely, learning retardation to a severe degree. This study raises the question of how many children in these two groups show such symptoms as a result of either actual brain damage or some disturbance of neurological development. The learning disturbance or the behavioral disturbance may, in some instances, be the direct result of brain dysfunction, either actual damage or immaturity of development. In other instances, it may well be that the particular symptom may be not the direct result of brain dysfunction, but secondary to some other disturbance caused directly by brain dysfunction.

For example, C.B., a behaviorally disturbed boy who has strong symptomatic evidence of a seizure disorder might well show impulsive eruptions of disturbed behavior directly as a consequence of his abnormal cerebral activity. Similarly, his learning might suffer directly as a consequence of brain damage.

Another boy in the behaviorally disturbed group, L.C., shows a peculiar preference for his left hand, only for the purpose of writing, in combination with other neurological findings such as a pathological reflex on one side. He is virtually a nonreader. It may be that his specific reading disability is the direct consequence of some disturbance of interhemisphere integration. His behavior, on the other hand, might well be secondary, not the direct result of his brain damage, but a consequence of his inability to read.

Among the mentally retarded students some may be mentally deficient, purely as a result of a random distribution of intelligence among the population. Some undoubtedly suffer as a direct result of brain pathology, and it is not unexpected to see five such children in this group. One must raise the question, whether in a significant number of children so designated, there is a severe learning retardation, not the result of any specific brain damage, nor as a population variable, but as either a direct or secondary result of what may be termed immaturity of brain development, without at this time attempting to delineate the specific cause.

L.M., a girl in the mentally retarded group, was not classified as being brain damaged. She was considered, on the other hand, to show rather severe disturbance of nervous system functioning, largely on the basis of marked disturbance of postural organization, ability to execute distal movements, finger localization, etc. It should be expected that in many of the areas of learning, she would be deficient, simply from the standpoint of her inability to apply herself in any motor activity at a normal level for her age. One would raise the question of whether the learning process would best be served by educating her as a mentally defective, with children who show mental deficiency, without the rather severe disturbance of nervous system function that this girl demonstrates. Further, one would raise the question of whether this is an actual intelligence deficiency per se.

The evaluation of the child's nervous system function is, perhaps, an important facet to the consideration of the method of education to be applied for the individual child.

It would seem especially important to evaluate children at an early age when the learning retardation first becomes apparent. Perhaps many children can be spared not only the ordeal of attempting or being expected to achieve a level of learning or behavior of which their nervous system is incapable. Further, the nervous system evaluation at this stage might enable us to pursue an educational program that is not based simply on the overt symptoms of a "behavior disturbance" or the fact that the child achieves less than a certain score on a group IQ test.

Some of these children might fare better by an approach described by Kephart and Lehtinen in their educational approach to the brain damaged child, or by techniques as described in their book "The Slow Learner in the Classroom." A neurological evaluation should not be geared to whether or not there is actual brain damage. It is this rigid and, in a sense, artificial distinction that does not always permit proper placement for some of these children. The evaluation, when possible, should be expressed in terms of how, and to what degree, the child's nervous system is likely to affect the educational process, whether this be in terms of actual anatomic damage, immaturity, or unknown factors.

A boy such as L.C., who is a nonreader, could possibly have had a meaningful educational experience in his early school years, had he been spared the ordeal of being in an educational setting where reading was expected. In an educational program that used manual skills, there is a possibility that he might not have been a severe behavior problem. Some gain might have been possible in the area of language were he given intensive reading instruction. The overt symptom was a behavior disturbance which very likely was simply secondary to a language disturbance, which in turn is likely to be the result of minor brain injury.

R.G., a boy in the mentally retarded group, shows a most severe disturbance of nervous system functioning, including a virtual total blindness in one eye, and a marked loss of acuity in the other. His learning problem would undoubtedly differ from those children who are simply mentally retarded without any gross nervous system malfunctioning. It is likely that more progress would be made if the educational approach used was that as applied to a brain damaged child. L.M., a girl in the mentally retarded group, was not classified as brain damaged and yet, her nervous system functioning is so obviously retarded that she shows greater retardation than some of the children termed brain damaged. One should consider whether in her case educating her as a mentally deficient child has greater advantages than approaching her as a girl with some brain dysfunction.

Summary

A neurological screening was done on 40 students with a behavior disorder attending the "600" schools. Six of these students were considered to show objective neurological signs of some nervous system damage, and 19 showed signs suggestive of what the examining neurologist interpreted as being suggestive of immaturity of nervous system development.

In a group of 24 students classified as mentally retarded, 5 showed objective findings indicative of some nervous system damage, and 14 showed what the examining neurologist interpreted as findings suggestive of immaturity of nervous system functioning. The findings suggest that both groups have a higher incidence of both damage to the nervous system, and immaturity of nervous system functioning, as compared with a normal population. This evidence lacks confirmation in the absence of any control or comparison study with a normal population sample.

An attempt has been made to demonstrate that the nervous system evaluation cannot be looked upon simply in terms of whether or not the student shows brain damage. It is suggested that the nervous system evaluation, especially if done in the early years, may be a help in deciding the educational approach to the individual child. It is suggested that the classifications of behavior disturbance and mentally retarded, in many instances, simply express a symptom, and that classification of these children by an overt symptom imposes limitations on a proper educational approach for the individual child.

APPENDIX E-1

NEW YORK STATE DEPARTMENT OF EDUCATION
Division of Vocational Rehabilitation

Memorandum

November 1, 1962

To: Mr. Milton Cohen, Executive Director Federation of the Handicapped

From: Mr. Morris Klapper, Project Director Handicapped Students Research Project

Subject: Content of Appraisal and Service Programs in Handicapped Students Research Project

Purpose:

To observe and measure "The effectiveness of early application of vocational rehabilitation services in meeting the needs of handicapped students in a large urban school system."

The project will be aimed at severely disabled students in the 14- to 16-year age group, of which the Health Conservation students constitute a major disability unit. Vocational, educational, and guidance services will be offered to the student and his family, and an effort will be made to evaluate the effectiveness of these services in offsetting anticipated difficulties in occupational adjustment.

Study Group I will run during the 2-year period 1962-63 and 1963-64, ending in June 1964. Initially, up to 40 Health Conservation students will comprise the study sample, all of whom will receive the total appraisal. Subsequently, in February 1963, up to 20 of these will be admitted, as the Experimental Unit, into the service aspect of the program. The remainder will constitute the Comparison Unit and will not participate in any aspect of the service program. Both the Experimental and Comparison Units will be included in the final reappraisal in May-June 1964 and in the ensuing followup phase of the project.

I. Appraisal for Experimental and Comparison Units

The purpose of the initial appraisal is to obtain a profile of the student's psychosocial structure, his medical deficits, and his vocational strengths and weaknesses.

Federation of the Handicapped will conduct a 10-day appraisal for a maximum of 40 entering students, utilizing standardized tests, questionnaires and work tasks.

A. *Psychological Appraisal* — a battery of tests will be administered to all students and will include three major facets aimed at determining the presence, absence, or degree of a suspected personality disorder or intellectual deficit, as well as his level of achievement, as follows:

1. WISC or WAIS (short form)
   Concentrate on:
   a) Verbal scales (vocabulary and similarities)
   b) Performance scales
2. Projective Test — to aim at interpersonal and personal factors
3. Wide-range Achievement — concentrating particularly on word recognition and arithmetic

In addition to the test report and clinical observations, the examiner is required to execute the Handicapped Students Research Project rating scale. In filling out the scale, judgments will be made based on our knowledge of the disability and on all test and clinical data.

B. *Vocational Appraisal* — will be introduced with a student orientation to the program in addition to the following objective measurements:

1. Testing —
   a. Bennett Mechanical — W
   b. Minnesota Paper Form Board
   c. Minnesota Clerical
   d. Purdue Pegboard
   e. Crawford Small Parts
   f. Kuder Interest Test
2. Work Task Evaluation
   a. Clerical — alphabetizing, collating, and inserting, typing, adding machine, or cash register
   b. Assembly and packaging — plastic collars, pasting, button lace, screw assembly

c. Hand tools — measurement test, pliers, hammer, saw

3. Machines — home sewing machine, drill press, sander, wood or metal lathe, hand saw
4. Prework and postwork habits and attitude test
5. Preself- and postself-image inventories
6. Preoccupational and postoccupational information test
7. Social relationships.

Roles Played in Appraisal Process

A comprehensive record of this appraisal will be kept by Federation of the Handicapped and will be made available, together with the Handicapped Students Research Project rating scale, to the Handicapped Students Research Project not less than 10 days prior to a student's admission to the "service" program, thus allowing time for a case review by the Evaluation Team.

II. Service Program for Experimental Unit

The service program will be offered to 20 students who have received the appraisal, and for whom the following objectives are set forth:

1. To enhance the student's self-image and to strengthen his sense of self-sufficiency
2. To correct difficulties which may exist in the student's peer-relationship
3. To help parents toward a "reality-perception" of their child's strengths, limitations, and potentials
4. To give the student a useful body of knowledge about specific vocations and about industry in general
5. To help the student develop specific vocational skills and aptitudes.

Some equally important collateral objectives have been enunciated, and these are related more to the participating agencies rather than to the participating students. In the course of this project, school authorities will have the opportunity of re-examining possibilities for expanding the vocational content of the educational curriculum for severely disabled children. This implies changes in both curriculum content as well as in teacher role. Another objective, or hopeful outcome, of this research-demonstration project is the refinement of a coordinative process among 7 different agencies, 4 voluntary and 3 governmental, aimed at providing a vital service to disabled children and their families.

Federation of the Handicapped will be responsible for arranging students' attendance at the agency, and a range of vocational services will be made available to the Experimental students, aimed at achieving the above objectives. However, individual needs will be considered by the Evaluation Team in structuring each student's program. In addition, students will participate in a group guidance program which will be informational as well as group centered. Other specific vocational services will include the following:

a. Vocational exploration in major work areas

The work tasks to be explored will include various phases of: assembly, packaging, inspection, elementary service, clerical, clerical machine operating, basic tools, and vocational equipment. This experience will be recorded on a comprehensive Work Evaluation Sheet.

The prescription for the work area will be set up for each student on the basis of what is learned from the Appraisal Period and the suggestions made by the Evaluation Team at the end of the Appraisal Period. Consideration should be given for some students to have service in more than one work area because of the potential for development in several areas; for example, student may show potential both in the clerical and assembly areas. Further evaluation in both these areas will be of value in helping the student crystallize a future vocational goal.

In addition to the emphasis on vocational needs, consideration will be given to two other factors:

1) In some instances the work area may be used to increase the work tolerance of the individual in major muscle activities such as standing.

2) In other instances, the other facilities of the Agency may be utilized for additional, individual evaluations of the students; for example, if a student has very good eye-hand coordination and has done well in the use of the jewelers pliers, fine soldering, and on the jewelers lathe, additional work evaluation could be done in the Instrument Repair Division where these skills are being taught on an Industrial training basis.

b. Field trips to industry will be a part of the vocational emphasis of the Program with the student's teacher involved whenever possible.

c. If the problems of having students of this age receive some remuneration for work is not prohibitive, certainly paid work experience will be considered as a strong motivating factor in a work oriented setting.

d. There will be times when certain deficiencies in the student's educational development will be noticed such as in the use of measuring tools — rulers, micrometers, use of fractions, etc. — and these deficiencies will be pointed out so that the teacher can help the student develop the necessary prevocational skills.

e. Inherent in any good prevocational program is the development of work habits and attitudes. At the Federation of the Handicapped, this is done through emphasis on punctuality, attendance, the ability to work with coworkers, the ability to work under supervision and all the personality factors making for a "good" employee. It must be recognized that the development of work habits and attitudes must be stressed not only in the work setting but also in school where demands and pressures must be placed on the student's performance in order to get him (her) ready for the adult world.

f. Group vocational guidance

Group vocational guidance will be conducted by the Federation of the Handicapped in cooperation with the Board of Education and the Division of Vocational Rehabilitation. Attention must be paid to where it will be presented (in school or in the Agency) and who will assume responsibility for carrying out the various units of the guidance program.

g. Vocational counseling

Counseling of the student will be conducted as a joint responsibility of both the DVR counselor and the Agency counselor. This will be based on early planning and understanding of the division of responsibility in order to avoid confusion for the child.

h. Parent education

Because of the heterogenity of disabilities in this group, individual parent conferences with the Federation of the Handicapped counselor are indicated. Conferences should also be arranged for an educational interpretation and approach to the students problems.

After evaluation of the needs of the family and the child, a group approach to parent education can be planned.

i. Case conferences

Case conferences will be held on a regularly scheduled basis with the teacher, the DVR counselor, and the Agency staff in order to discuss change of plans, progress, further planning, and problems still to be resolved for each of the students. These conferences can be held in one of two ways:

1. Have the teacher and DVR counselor attend weekly case conferences on several students every other week, or —
2. If the teacher's time is somewhat limited, case conferences could be held with the DVR counselor and Agency staff on a once-a-week basis for 3 weeks and a separate conference for the sharing of information with the teacher, the DVR counselor and the Federation of the Handicapped coordinator on the 4th week.

j. Programming to help prepare students for desirable summer activities such as camp, recreation center, travel tours, sheltered workshop activities, etc.

k. Use of social case work services as indicated.

l. Maintenance by the participating agencies of comprehensive records, and preparation and submission of appropriate reports to the Handicapped Students Research Project.

Service Program Duration

An academic year is created, starting in September and ending in June (excluding July and August), and divided into 2 semesters.

The Experimental Unit of the initial study group will be trained in the Service Program during three semesters:

Semester A starts in February 1963 — ends in June 1963.
Semester B starts in September 1963 — ends in January 1964.
Semester C starts in February 1964 — ends in June 1964.

Services will be rendered 2 days a week, in accordance with the above-described program; a second group of trainees will be selected as a replicate group whose appraisal will begin September 1964. This group will be processed in the manner of the first group. The shop-work program for the replicate group will begin February 1965, and terminate June 1966.

Note: The Board of Education is arranging for a teacher to be present with the students while they are at the rehabilitation center.

APPENDIX E-2

NEW YORK STATE DEPARTMENT OF EDUCATION
Division of Vocational Rehabilitation

Memorandum

November 1, 1962

To: Dr. Max Dubrow, Director
Association for the Help of Retarded Children,
Training Center and Workshop

From: Mr. Morris Klapper, Project Director
Handicapped Students Research Project

Subject: Content of Appraisal and Service Programs in Handicapped Students Research Project

Purpose:

To observe and measure "The effectiveness of early application of vocational rehabilitation services in meeting the needs of handicapped students in a large urban school system."

The project will be aimed at severely disabled students in the 14- to 16-year group, of which the Mentally Retarded constitute a major disability unit. Vocational, educational, and guidance services will be offered to the student and his family, and an effort will be made to evaluate the effectiveness of these services in offsetting anticipated difficulties in occupational adjustment.

Study Group I will run during the 2-year period 1962-63 and 1963-64, ending in June 1964. Initially, 35 mentally retarded students will be admitted as the study sample, all of whom will receive the appraisal described below. Subsequently, in February of 1963, 15 of these will be admitted, as the Experimental Unit, into the service aspect of the program. The remainder will constitute the Comparison Unit and will not participate in any aspect of the service program. Both the Experimental and Comparison Units will be included in the final reappraisal in May-June 1964 and in the ensuing followup phase of the project.

I. Appraisal for Experimental and Comparison Units

The purpose of the initial appraisal is to obtain a profile of the student's psychosocial structure, his medical deficits, and his vocational strengths and weaknesses.

Association for the Help of Retarded Children's Training Center and Workshop will conduct a 10-day vocational appraisal for a maximum of 35 entering students. This evaluation will include such areas as:

— Special skill evaluations in self-care.
— Change-making (functional everyday arithmetic).
— Word recognition.
— Travel.
— Performance on work samples.
— Gross manual dexterity.
— Fine manual dexterity.

In addition, diagnostic interviews with both subjects and their families will be conducted in order to identify variables of attitudes, personality, familial, and social functioning which may affect outcomes.

A comprehensive record of this appraisal will be kept by the Association for the Help of Retarded Children Training Center and will be made available, together with the Handicapped Students Research Project rating scale, to the Handicapped Students Research Project not less than 10 days prior to a student's admission to the "service" program, thus allowing time for a case review by the Evaluation Team.

II. Service Program for Experimental Unit

The service program will be offered to 15 students who have received the appraisal, and for whom the following objectives are set forth:

1. To enhance the student's self-image and to strengthen his sense of self-sufficiency.
2. To correct difficulties which may exist in the student's peer relationship.
3. To help parents toward a "reality-perception" of their child's strengths, limitations, and potentials.

4. To give the student a useful body of knowledge in general.
5. To help the student develop specific vocational skills and aptitudes.

Some equally important collateral objectives have been enunciated, and these are related more to the participating agencies than to the participating students. In the course of this project, school authorities will have the opportunity of re-examining possibilities for expanding the vocational content of the educational curriculum for severely disabled children. This implies changes in curriculum content and in teacher role. Another objective, or hopeful outcome, of this research-demonstration project is the refinement of a coordinative process among 7 different agencies, 4 voluntary and 3 governmental, aimed at providing a vital service to disabled children and their families.

A range of vocational services will be made available to the Experimental students, aimed at achieving the above objectives. However, individual needs will be considered by the Evaluation Team in structuring each student's program. In addition, students will participate in a group guidance program which will be informational as well as group centered. Other specific vocational services will include the following:

a. Vocational exploration: extension of exploration of potentials indicated in the appraisal. Use will be made of the variety of processes in the center's workshop structure, in addition to assignments to selected clerical and maintenance aspects of workshop administration. These may be on simulated work as well as on subcontracts from industry. During the vocational experience, students will undertake assembly, collating, and related tasks. An earnings arrangement will be developed if the work is on subcontract from industry.

b. Exposure to industry will be effected through individual and group sessions, as well as by structured field trips to a variety of individual settings.

c. Individual and group vocational counseling, to be done in cooperation with the Division of Vocational Rehabilitation counselor

d. Individual and/or group parent education and parent counseling

e. Development of sound work habits, such as: attendance, punctuality, neatness, grooming, attention span, industriousness, ability to follow oral and written instructions, ability to work under supervision, etc.

f. Development of work tolerance

g. Work with parent and student toward development of latter's self-sufficiency in such areas as independent travel, performing household chores, handling spending money, relating to peers and peer groups, etc.

h. Case conferences, at various levels, and including different combinations of representatives from participating agencies

i. Programing to help prepare students for desirable summer activities such as camp, recreation center, travel tours, sheltered workshop activities, etc.

j. Use of social case work services as indicated

k. Maintenance by the participating agencies of comprehensive records, and preparation and submission of appropriate reports to the Handicapped Students Research Project

Service Program Duration

An academic year is created, starting in September and ending in June (excluding July and August), and divided into 2 semesters.

The Experimental Unit of Study Group I will be trained in the Service Program during 3 semesters:

Semester A starts in February 1963 — ends in June 1963.
Semester B starts in September 1963 — ends in January 1964.
Semester C starts in February 1964 — ends in June 1964.

Services will be rendered 2 days a week, in accordance with the above-described program. Second Study Group (Replicate) will be similarly trained during 3 semesters, beginning February 1965 and ending June 1966.

NOTE: The Board of Education is arranging for a teacher to be present with the students while they are at the rehabilitation center.

APPENDIX E-3

NEW YORK STATE DEPARTMENT OF EDUCATION
Division of Vocational Rehabilitation
Memorandum

November 1, 1962

To: Mr. Roland Baxt, Executive Director
Federation Employment and Guidance Service

From: Mr. Morris Klapper, Project Director
Handicapped Students Research Project

Subject: Content of Appraisal and Service Programs in Handicapped Students Research Project

Purpose:

To observe and measure "The effectiveness of early application of vocational rehabilitation services in meeting the needs of handicapped students in a large urban school system."

The project will be aimed at severely disabled students in the 14- to 16-year age group, of which the Emotionally Disturbed in the "600" schools constitute a major disability unit. Vocational, educational, and guidance services will be offered to the student and his family, and an effort will be made to evaluate the effectiveness of these services in offsetting anticipated difficulties in occupational adjustment.

Study Group I will run during the 2-year period 1962-63 and 1963-64, ending in June 1964. Initially, 50 emotionally disturbed students will be admitted as the study sample, all of whom will receive the appraisal described below. Subsequently, in February of 1963, 24 of these will be admitted, as the Experimental Unit, into the service aspect of the program. The remainder will constitute the Comparison Unit and will not participate in any aspect of the service program. Both the Experimental and Comparison Units will be included in the final reappraisal in May-June 1964 and in the ensuing followup phase of the project.

I. Appraisal for Experimental and Comparison Units

The purpose of the initial appraisal is to obtain a profile of the student's psychosocial structure, his medical deficits, and his vocational strengths and weaknesses.

Federation Employment and Guidance Service will conduct a 10-day vocational appraisal for a maximum of 50 entering students. In addition to an initial interview of the student and a responsible guardian, the vocational appraisal by the Federation Employment and Guidance Service will concern itself with the following facets:

punctuality
attendance
travel
attention
participation in group
gross manual dexterity
fine manual dexterity
sustaining work
acceptance of work environment
getting along with others
goals and limitations
learning ability
personal acceptance
placeability

A comprehensive record of this appraisal will be kept by the Federation Employment and Guidance Service and will be made available, together with the Handicapped Students Research Project rating scale, to the Handicapped Students Research Project, not less than 10 days prior to a student's admission to the "Service" program, thus allowing time for a case review by the Evaluation Team.

II. Service Program for Experimental Unit

The service program will be offered to 24 students who have received the appraisal, and for whom the following objectives are set forth:

1. To enhance the student's self-image and to strengthen his sense of self-sufficiency

2. To correct difficulties which may exist in the student's peer-relationship

3. To help parents toward a "reality-perception" of their child's strengths, limitations, and potentials

4. To give the student a useful body of knowledge about specific vocations and about industry in general

5. To help the student develop specific vocational skills and aptitudes.

Some equally important collateral objectives have been enunciated, and these are related more to the participating agencies than to the participating students. In the course of this project, school authorities will have the opportunity of re-examining possibilities for expanding the vocational content of the educational curriculum for severely disabled children. This implies changes both in curriculum content as well as in teacher role. Another objective, or hopeful outcome, of this research-demonstration project is the refinement of a coordinative process among 7 different agencies, 4 voluntary and 3 governmental, aimed at providing a vital service to disabled children and their families.

A range of vocational services will be made available to the Experimental students, aimed at achieving the above objectives. However, individual needs will be considered by the Evaluation Team in structuring each student's program. In addition, students will participate in a group guidance program which will be informational as well as group centered. Other specific vocational services will include the following:

a. Vocational exploration; extension of exploration of potentials indicated in the appraisal. Use will be made of the variety of processes in the center's workshop structure, in addition to assignments to selected clerical and maintenance aspects of workshop administration. These may be on simulated work as well as on subcontracts from industry. During the vocational experience, students will undertake assembly, collating, and related tasks. An earnings arrangement will be developed if the work is on subcontracts from industry.

b. Exposure to industry will be effected through individual and group sessions, as well as by structured field trips to a variety of individual settings.

c. Individual and group vocational counseling, to be done in cooperation with the Division of Vocational Rehabilitation counselor

d. Individual and/or group parent education and parent counseling

e. Development of sound work habits, such as: attendance, punctuality, neatness, grooming, attention span, industriousness, ability to follow oral and written instructions, ability to work under supervision, etc.

f. Development of work tolerance

g. Work with parent and student toward development of latter's self-sufficiency in such areas as independent travel, performing household chores, handling spending money, relating to peers and peer groups, etc.

h. Case conferences, at various levels, and including different combinations of representatives from participating agencies

i. Programming to help prepare students for desirable summer activities such as camp, recreation center, travel tours, sheltered workshop activities, etc.

j. Use of social case work services as indicated

k. Maintenance by the participating agencies of comprehensive records, and preparation and submission of appropriate reports to the Handicapped Students Research Project

Service Program Duration

An academic year is created, starting in September and ending in June (excluding July and August), and divided into 2 semesters.

The Experimental Unit of Study Group I will be trained in the Service Program during 3 semesters:

Semester A starts in February 1963 — ends in June 1963.
Semester B starts in September 1963 — ends in January 1964.
Semester C starts in February 1964 — ends in June 1964.

Services will be rendered 2 days a week, in accordance with the above-described program. Second Study Group (Replicate) will be similarly trained during 3 semesters, beginning February 1965 and ending June 1966.

NOTE: The Board of Education is arranging for a teacher to be present with the students while they are at the rehabilitation center.

Agency Report Forms

CLIENT APPRAISAL FORM

Client .... Date ....

Address .... Worker ....

Comments:

Date of Entry
Into Project ....

---

1. Punctuality

A. Always on time or early
B. Occasional lateness
C. Punctuality unacceptable
D. Not enough information to evaluate

Comments:

2. Attendance

A. Attendance excellent
B. Attendance acceptable
C. Attendance unacceptable
D. Not enough information to evaluate

Comments:

3. Travel

A. Unrestricted travel
B. Must be explained once
C. Must be shown
D. May learn after several times
E. Only in familiar circumstances
F. Not enough information to evaluate

Comments:

4. Attention

A. Usually pays attention
B. Occasionally needs to be reminded to pay attention
C. Seldom pays attention
D. Not enough information to evaluate

Comments:

5. Influence on group

A. Generally favorable
B. Occasionally is distracting to others
C. Very frequently distracts others
D. Has no influence in group
E. Not enough information to evaluate

Comments:

6. Participation in group

A. Frequently volunteers in group, usually knows answers
B. Frequently volunteers in group, but often gives incorrect answers
C. Occasionally volunteers, usually gives wrong answers
D. Occasionally volunteers, usually knows answers
E. Seldom volunteers, can usually answer adequately when called upon
F. Seldom volunteers, usually does not know answer when called upon
G. Not enough information to evaluate

Comments:

7. General attitude towards program

A. Accepts importance of this program
B. Accepts only certain areas seriously
C. Sees little need for training
D. Not enough information to evaluate

Comments:

8. Quantity of production in tasks requiring gross manual dexterity (large muscle movements)

A. Good quantity of production
B. Adequate quantity of production
C. Unacceptable quantity of production
D. Not enough information to evaluate

Comments:

9. Quality of production in tasks requiring gross manual dexterity (large muscle movements)

A. Good quality of production
B. Adequate quality of production
C. Unacceptable quality of production
D. Not enough information to evaluate

Comments:

9B. Gross manual dexterity tasks

Comments:

10. Quantity of production in tasks requiring fine manual dexterity (small muscle movements of the fingers)

A. Good quantity of production
B. Adequate quantity
C. Unacceptable quantity
D. Not enough information to evaluate

Comments:

11. Quality of production in tasks requiring fine manual dexterity (small muscle movements of the fingers)

A. Good quality of production
B. Adequate quality production
C. Unacceptable quality production
D. Not enough information to evaluate

Comments:

11B. Fine manual dexterity tasks
Comments:

12. Ability to accept repetitive work
- A. Repetitive work performed with zest
- B. Accepts repetitive work realistically
- C. Avoids repetitive work
- D. Not enough information to evaluate

Comments:

13. Sustaining work
- A. Client can sustain work assignment
- B. Client has some difficulty in sustaining work assignment
- C. Client is unable to sustain work assignment
- D. Not enough information to evaluate

Comments:

14. Acceptance of work environment
- A. Accepts all aspects of work situation
- B. Has difficulty in accepting one or more aspects of work situation
- C. Difficulty in accepting many aspects of work situation
- D. Does not accept work situation
- E. Not enough information to evaluate

Comments:

15. Ability to get along with others in work situation
- A. Gets along well with every one in the work situation. Cooperative, helpful, and socially skillful.
- B. Without being socially active, accepts and is accepted by others. No frictions.
- C. Inter-personal problems with one or two individuals in the work setting, but these are minor and situational
- D. Recurring incidents of difficulty in getting along with more than one person in the work setting.
- E. Is withdrawn from group and not really part of it.
- F. Not enough information to evaluate

Comments:

16. Goals and limitations
- A. Accepts limitations in terms of vocational goals
- B. Has difficulty in accepting limitation in terms of vocational goals
- C. Cannot accept own limitations
- D. Not enough information to evaluate

Comments:

17. Personal growth

A. Seems to benefit from most of program

B. Shows limited benefit from program

C. Seems to have benefitted little from program

D. Not enough information to evaluate

Comments:

18. Learning ability

A. Client learns readily, and without difficulty in the work situation

B. Client has significant learning problems requiring more than average instruction

C. Client's learning ability is so limited that placement is doubtful

D. Not enough information to evaluate

Comments:

19. Personal acceptance (aside from disability)

A. Appearance, personal characteristics, and speech are likely to cause generally good impression on employer.

B. Important favorable and unfavorable aspects are present. Impression on employer uncertain.

C. Unless counseling and other services can modify unfavorable aspects, client is likely to have a predominantly unfavorable effect on most employers.

D. Not enough information to evaluate

Comments:

20. Attitude to placement

A. Client gives evidence of positive attitude to placement

B. Client is ambivalent about work

C. Negative feelings about going to work are dominant

D. Not enough information to evaluate

Comments:

21. Placeability

- A. In the present job market, the client seems placeable after the completion of PAT
- B. In the present job market, the client seems placeable if he receives other services
- C. The client seems to have the potential for specific trade training before placement
- D. Ready for immediate job placement
- E. Client may be placeable in industry only under especially favorable condition
- F. Placeable in sheltered workshop only
- G. The client seems not placeable even in long-term workshop employment
- H. Not enough information to evaluate

Comments:

GENERAL COMMENTS: **Under this heading you may wish to expand or explain the ratings**

REMARKS: **What kind of work can he perform adequately within a possible placeable area?**

What kinds of tasks elicit poor performance?

In what kinds of tasks can he profit from training?

CLIENT APPRAISAL FORM

Other Client Problems		*Recommendations*	
1. Family Adjustment Problems		1. Extended Evaluation	
2. Language problems		2. PAT	
3. Social isolation		3. Vocational training (other)	
4. Does not see self as worker		4. Additional medical diagnosis	
5. Unwilling to accept training		5. Medical treatment	
6. Demands unrealistic working conditions		6. Psychiatric evaluation	
7. Other		7. Psychiatric treatment	
		8. Family casework	
		9. Further vocational counseling	
		10. Group work and recreation	
		11. Full time placement in industry	
		12. Part time placement in industry	
		13. Workshop employment	
		14. Case closure — not voc. Feasible	
		15. Other	

Program Suggested:

Counselor ....

	A	B	C	D	E	F	G	H
1. Punctuality								
2. Attendance								
3. Travel								
4. Attention								
5. Influence on Group								
6. Participation in Group								
7. General Attitude Towards Program								
8. Quantity of Production in Tasks (Gross Dexterity)								
9. Quality of Production in Tasks (Gross Dexterity)								
10. Quantity of Production in Tasks (Fine Dexterity)								
11. Quality of Production in Tasks (Fine Dexterity)								
12. Ability To Accept Repetitive Work								
13. Sustaining Work								
14. Acceptance of Work Environment								
15. Ability To Get Along With Others								
16. Goals and Limitations								
17. Personal Growth								
18. Learning Ability								
19. Personal Acceptance (Aside from Disability)								
20. Attitude to Placement								
21. Placeability								

Agency Report Forms

WORK EVALUATION REPORT

Name: Age: Sex:

Address: Phone:

Diagnosis:

Physical Limitations:

Date of Evaluation: From ______________ To: ______

Manual Dexterity

Assembly

Work Sample	Standard	Production	Rating
Pasting			
Bolts and Washers Gross			
Screws and Washers Fine			
Trinket Assembly			
Cord Ironing			
Button Lace			
Lacing			

Packaging

Plastic Collars			
Envelope Inserting			
Fold one insert			
Fold three inserts			
Collating			

Inspection

	Standard	Errors	Time	Rating
Wire Cutting Insulated				
Micrometer				
Ohm Meter				
Linear Measurement				
Test 1				
Test 2				
Test 3				
Test 4				
Test 5				
Test 6				
Test 7				

Clerical

Work Sample	Standard	Time	Errors	Rating
Filing and Alphabetizing				
Phone Directory				
Mail Sorting				
Proofreading				
Test 1				
Test 2				
Test 3				
Test 4				
Test 5				
Stamping				
Messenger Service (Inside)				
(Outside)				
Other (write in)				

Clerical Machine Operating

Adding Machine				
Manual				
Electric				
Comptometer				

Typewriter	Standard	Rating	Comments
3 line envelopes			
Words per minute			
Mimeograph			
Graphotype			
Addressograph			
Switchboard			
Other (write in)			

Basic Tools

	Rating	Comments
Scissors and Pasting		
Cutting Knife — Paper		
Pliers — Wire Bending		
Hack Saw and File		
Lamp Project		
Other (write in)		

Vocational Equipment

Work Sample	**Standard**	**Production**	**Rating**
Drill Press — Wood	....	....	....
Sewing Machine			
Home			
Test 1	....	....	....
Test 2	....	....	....
Test 3	....	....	....
Test 4	....	....	....
Industrial			
Test 1	....	....	....
Test 2	....	....	....
Test 3	....	....	....
Test 4	....	....	....
Jewelers Lathe	....	....	....
Soldering Iron	....	....	....
Jig Saw	....	....	....
Engine Lathe	**Rating**	**Comments**	
Wood Lathe	....	....	
	....	....	

Summary of Paid Work Experience (if any)

APPENDIX F

Experience With High School Support Program

In an evaluation of the Initial Study Group among those students who were referred from the "600" school to a regular high school, we found that in almost all of the cases the students insisted on dropping out often over the objections of the high school. The method for effecting this aim was truancy. Counseling interviews revealed the students' impression of the high school as uncomfortably big, impersonal, friendless, and too demanding.

On this basis a plan was evolved for the Replicate group, to provide strong in-school support to all high school returnees. The Federation Employment and Guidance Service, as part of their contracted program, provided a counselor who had strong rapport with the students and who aggressively pursued available services in the high schools. This service included frequent visits to the high schools; coordination of agency services with the school guidance services; intensive and repeated counseling sessions with the students; the availability of 6 hours of paid work a week either at the school site or in the workshop at hours convenient to the students; repeated home visits and quick response to crisis situations with an attempt at early solutions. The involved counselor was highly trained, strongly dedicated, and provided support service beyond that which one might reasonably expect, often using his free time and expending unreimbursable funds in an emergency situation. *It was hypothesized, therefore, that an intensive support program would be a major factor in assisting these students to remain in high school.* The greatest problem seemed to be their lack of academic preparation for a high school program in addition to their inability to function emotionally in a competitive high school environment. To achieve graduation with a reading grade level well below average, even in a general program, requires a purposeful motivation which is not a characteristic of this group. In the final analysis, we determined that this program showed an average increase over the Initial Study Group, of 5 months in the length of stay in high school. The experience suggests that the alternative might be to consider initiating alternate vocational plans rather than to exert pressure on these students to remain in a structured public school situation where there is limited effort to understand their problems, they are poorly prepared, and have more individual needs than the average high school student.

APPENDIX G

Pregnancy

It became evident that the major hindrance to the girls in the Emotionally Disturbed group was pregnancy out of wedlock rather than the behavior problem which was the primary basis for their referral to a "600" school. In the Initial Study Group, 9 girls were found to have been pregnant at the time of followup. This pattern seems to have continued in the Comparison group with only 1 pregnancy in the Experimental group during the next 2 years. Of the Replicate group, 14 out of 30 girls had become pregnant at the point of followup 2 years later. Thirteen of the 14 were available for interview. These pregnancies were divided evenly between Comparisons and Experimentals.

For the purpose of evaluating this problem, the Counselor constructed a questionnaire guideline so that during the interview all girls were queried in the same sequence and structure. It developed that 8 girls had undergone only one pregnancy, 2 had 2 pregnancies and 3 had 3 pregnancies; all pregnancies were without marriage at any point. Seven of the girls had been 16 at the point of conception, 3 had been 15, one was 14 and one admitted to being 13 years of age when she conceived. Two of the pregnancies resulted in early termination for undisclosed reasons. One infant died a few months following delivery, one pregnancy was admittedly aborted, and 6 girls were pregnant at the time of followup.

Seven girls were first seen by a Doctor in their third or fourth month. Three claimed to have seen a Doctor during the second month and one in the first few weeks, but one did not see a medical source until the day of delivery.

Generally they reported no great disorganization in the home nor lasting family disapproval. They were familiar with birth control devices only on a very elementary level and through heresay, but there was considerable hesitation in utilizing any of the methods known to them as their methods frequently had been known to be fatal. Unfortunately for these girls in their milieu, more acceptable information is available only after the first pregnancy which is the factor most disruptive to their vocational planning.

APPENDIX H-1

Johnny Adams — The Multiproblemed Boy

Johnny was the oldest of 5 children. His father, a former veteran, was an alcoholic who died when Johnny was 15 years of age. The mother was protective, and interceded for Johnny with the authority figures. The family lived on Welfare.

Johnny got into trouble in school at the age of 9, and after a series of problems, he was finally suspended from public school. He remained out of school for 11 months, after which he was placed in a "600" school, from which he was shortly suspended again. After another period of time he was committed to a mental hospital for 19 months, although there was no recorded evidence of a mental problem.

Upon discharge, after having spent over 2 years out of public school, he was finally placed again in a "600" school. During this period he was arrested several times for a series of lawless acts. However, his behavior changed just before he was entered into the HSRP sample, with his reportedly becoming more amenable. He continued to be hostile and volatile, however. During the period of 4 or 5 years prior to inclusion in the sample, Johnny had over 50 different documented contacts with social service and mental health personnel. It was assumed that he had many more undocumented contacts. (See attached documentation).

Johnny was part of the Experimental Group, and responded to the program the best of any member of the sample. He was 1 of 2 students to be given a special work assignment as a reward. During this period he was subject to loss of control due to anger over alleged injustices, but did not again, to HSRP knowledge, engage in additional antisocial acts.

After 10 months in the Experimental Group, Johnny was arrested on a serious charge of assault on a police officer and attempted robbery. Cumbersome court procedures resulted in his being held without bail for 41 consecutive days. There was circumstantial evidence that possible excessive police force was used in the arrest. Evidence given at his trial seemed to indicate a strong possibility of his innocence. He received what appeared to be inferior legal services. As a result he received a 3 year prison sentence, which was suspended because of his record with HSRP.

Returning to the Project after this experience he was a changed boy. He was no longer cooperative, but was generally hostile and surly. It soon developed that he had joined a Black Nationalist Group, and was again antisocial in his orientation. It is known that he actively participated in riots in his area in the summer of 1966.

His original affinity for HSRP was so strong that he never completely broke off contact, and as the Black Nationalist influence waned, he returned to closer cooperation. However, he never again reached his former excellence in performance. HSRP was never able to involve him in effective vocational training. He stayed out of jail, and worked fairly steadily at a series of menial, low level jobs and his demonstrated potential was never achieved.

Chronological Listing of Events in the Life of Johnny Adams

1960

1959 & 1960............Ran away from home 5 times
3/60.........................Suspended from P.S. 129
5/60.........................Referral of Bureau of Child Guidance
6/60.............Court Appearance
7/60.............Court Appearance
7/60.............New Probation Officer
7/60.............Youth House commitment
8/60.............New Probation Officer
8/60.............Another new Probation Officer
8/60.............Referral to the Bureau of Mental Health Services
10/60...........Interview with Children's Village
10/60...........Youth House commitment
10/60...........Referral to Kings County (necessary for recommendation to Creedmoor)
10/60...........Creedmoor referral
11/60...........New Probation Officer

1961

2/61.............Admitted to P.S. 613
2/61.............Bureau of Child Guidance Psychological Report
4/61.............Suspended from P.S. 613
8/61.............Creedmoor referral
11/61...........Creedmoor commitment

1962

3/62.............Released from Creedmoor
9/62.............Entered P.S. 617
9/62.............Arrested—charged with being burglary lookout
9/62.............Bureau of Child Guidance Social Worker report
10/62...........Bureau of Child Guidance Social Worker report
10/62...........Mentioned in article in Amsterdam News

1963

7/63............Released from convalescent care at Creedmoor
10/63...........Court appearance—case dismissed
10/63...........New Probation Officer
10/63...........Church center membership reported
10/63...........Community Center membership reported
10/63...........Entered P.S. 617
12/63...........Referred to Buerau of Mental Health Services
12/63...........Considered for possible placement at Lincoln Hall

1964

1/64............Arrested for stealing two bottles of milk
1/64............Referred to NYS Division for Youth for possible placement
2/64............New Probation Officer
2/64............Reported to be pushing passengers in subway
8/64............Inclusion in HSRP sample
8/64............First HSRP knowledge of reading problem
9/64............Transferred to P.S. 622

1965

3/65............Probation Officer concerned about reading deficiency
4/65............Teacher concerned about reading problem
5/65............Reported to be associating with a "bad group"
6/65............Arrested for burglary—acquitted
7/65............Neighborhood Corps job with Transit Authority for summer
10/65...........Placed on special HSRP merit job as shipping clerk
11/65...........Arrested for assault and attempt to steal gun—spent 41 days in detention
12/65...........Helped others in beating boy while on parole, did not come to police attention

1966

4/66............Entered Remedial under DVR
5/66............Approximate date of entering Black Muslim movement
6/66............Entered Neighborhood Corps job in workshop as shipping clerk
7/66............Participated in riots in East New York
8/66............Lost Neighborhood Corps job
9/66............Tranferred to Food Trades High School
12/66...........Dropped out of Food Trades High School
12/66...........Arrested for stabbing man—victim refused to press charges

APPENDIX H-2

Janie Dodd—The Situation Was Always Out of Control

Janie was the middle of 3 children and lived with her mother in a middle class area. The father was not in the home, but visited occasionally and contributed to the family income. He, at the same time, supported a second common law family.

Pretty, labile, and excitable, Janie also had a delicate judgemental sense of all those with whom she came in contact, and was usually able to completely control the situation by deft maneuvering, juggling of fact, and outright lying.

Janie was a behavior problem almost from the beginning of school. The family members fought among themselves, and against other family groups in the street, and she had no concept of control as a social need. She would not allow the least "insult" to pass unchallenged, and was soon suspended from regular public school.

She engaged in various types of antisocial behavior in the community during this time, and was picked up by the police regularly. However, because of her deft ability to manipulate authority figures, she usually squirmed out of the problem. She ran with a gang, and from the age of 11 or 12, habitually spent most of the night out.

Janie was part of the Experimental Group, and entered the HSRP workshop as charmingly and irresponsibly as she faced everything else. After several months she was sent by the court to a correctional training school upstate. HSRP's forwarding of information to the training school concerning the Project, plus Janie's good behavior got her out in only a few weeks.

HSRP's intercedence for her with the training school seemed to have a tremendous effect on her. She came back to the Project and almost overnight changed into a responsible, hardworking girl. It was possible to follow the prevocational experience of the workshop with enrollment in a vocational training situation where she did well.

Her emotional overlay continued to cause serious trouble in the community. She got beaten up regularly by members of the family, was periodically thrown out of the house, became pregnant, was expelled from school where she was training, had an out-of-wedlock baby, got on Welfare, and was "insulted" and "abused" on an almost daily basis. Through it all, she stayed at the goal of receiving suitable vocational training, and has every indication of eventually becoming a responsible and productive member of society.

APPENDIX H-3

Two Vocational Outcomes After Pregnancy

Because our analysis was not designed to deal statistically with some of the interpersonal dynamics which became evident, it may be useful to review some of the case experiences which indicate the variety of problems occurring in this study.

H., an Experimental student, was described as uncooperative, sullen and unreliable. She represented a third generation relief recipient in a family of 6 siblings headed by her mother. She responded very slowly to counseling and was dropped from the "600" school when she became pregnant. At this point the DVR counselor arranged for her participation in a community program designed for unwed mothers and including prenatal care for a cooperative school program under a Board of Education program, hospitalization and postpartum care. After delivery, client was entered into a clerical program with moderate success. Arrangements for the care of her child by a community agency were resolved so that she would not lose excessive time during training. She required considerable understanding and counseling throughout the 8 months of training. Efforts at placement were successful but client did not adjust in her first attempt; she required urging and supportive interviews before she located a position with a larger department store as a clerical employee and is presently so employed.

D., a Comparison student, was 14 years old at intake. She was reported to have run away from home within 6 months and was dropped from the "600" school. Client came from a family of 4 children headed by her mother who evinced little interest in her possible whereabouts. The DVR counselor was able to locate D. and ascertained that she was pregnant and living with "friends." Client was reluctant to maintain contact with DVR as she did not plan to return to her home. However, after she delivered twins she evidently had no alternative. Attempts to involve her clinical care and to interest her in further training met with complete resistance. At the point of followup she had experienced two additional pregnancies, one of which was a stillbirth.

APPENDIX H-4

Demonstrating the need for periodic re-examination to evaluate change (forward or backward) and thus be able to provide for appropriate intervention

T. lived with mother, stepfather and 5 younger siblings. The family speaks Spanish exclusively in the home. During initial evaluation, the Psychologist rated client as "below average" in general ability to profit from education and training with an "inferior" rating in overall emotional adjustment. He was given a "high" (top rating) in all items on the vocational rating scale. The vocational counselor thought he had moderate placeability and training potential with an estimated low employment maintenance. The teacher felt that he had "very superior" ability to profit from education and was "above average" in his general behavioral adjustment to the school setting. According to psychological tests administered 3/7/61, when client was 11 years old, his Full Scale IQ was 68 with a Verbal level at 60. His achievement levels were 2d grade reading and 3.5 in arithmetic. Testing at 14 years of age indicated a Verbal IQ of 69 and a Performance score of 107. We retested at 16 years 3 months and found a Performance Scale of 91 (WAIS), Verbal 82, and Full Scale of 85. The suggestion by the Psychologist was that the discrepancy was thought to be due to *lack of skill and experience with the English language.* During the Initial evaluation, recommendation was made and accepted that client be entered into regular classes — His progress is minimal in high school but he has had to cope with a background of 8 years of learning on a level with mentally retarded children. He is expected to graduate and will be considered for further vocational exploration at that time.

APPENDIX H-5

Adjustment to High School for a "600" Student

A., an Experimental student, was an exemplory student during the workshop process despite an incredibly rejecting home life. Client's parents were both deceased and the mother of a step-parent whom she called her grandmother was her guardian. The relationship was poor and we were unable to get any level of cooperation in helping to resolve client's physical problems. It was agreed that referral to regular high school would be made by the "600" school. Client was enrolled in the program with the DVR and Workshop counselor arranging a conference with the high school guidance counselor in order to assist with the adjustment to a normal class structure. Because of limited funds and a constant need for purchase of miscellaneous items which the guardian refused to provide, the DVR counselor secured after-school and summer employment for client, to defray incidental expenses. The relationship in the home erupted and client was taken in by her minister and his wife. She has lived happily with them for more than a year and has performed well on her part-time job. She is expected to graduate from high school in June 1968.

L. was referred to regular high school from the Home Instruction program subsequent to a period of enrollment in a "600" school. In order to help her to adjust to high school, the counselors from DVR and the Workshop arranged a conference with the high school guidance counselor. Client had considerable truancy despite routine checking and evidence of interest in her problem by the high school. It was finally agreed to transfer her to a new school since she felt she could respond with a new start. She was unable to sustain regular attendance, acceptable behavior, or adequate motivation for this effort. Client has subsequently been known to have two pregnancies (one full term) and efforts to interest her in further planning have been fruitless.

APPENDIX H-6

Suspected Neurological Impairment or Behavior Problem

C. was the oldest of 5 children and lived with his mother in a railroad flat in a poorer section of the Bronx, the family being supported by welfare. C. assumed the role of family head, and there was often much friction as he gave arbitrary orders to his siblings, and clashed with his mother. Most of his behavior troubles came from fights he had in the home which caused his mother to take him to court. Such explosions also got him suspended from regular school and placed in a "600" school.

C. was given psychological, psychiatric, medical, and vocational evaluations and in no instance was a neurological problem hinted. He was placed in the Experimental Group, and immediately became one of the more positively oriented of the members of the group. His WISC Full Scale was 118, and he was considered to be able to demonstrate the highest quality of work of any member of the sample in the workshop.

However, his history of falling into sudden and uncontrollable rages continued unabated. Although he made a good adjustment in the benign atmosphere of the workshop, he began to deteriorate behaviorally rather rapidly when he was returned to the more structured environment of regular high school the last semester of the Project. The pattern was always the same. He would have an explosion, and then be contrite and remorseful afterward. He began to become involved in antisocial activity as his behavior problems worsened, and was in court several times during this period.

It was during one attendance at court, when C. was under extreme pressure and the HSRP staff was on hand, that he suddenly had a severe seizure of more than an hour's duration. To HSRP's knowledge he had never had a similar attack before, although the family may have concealed other incidents. He was given a neurological examination, with EEG, together with a detailed description to the Neurologist of the seizure observed. He was given the diagnosis of Epilepsy, Psychomotor Type.

C. refused to cooperate in treatment, and continued to get into trouble. A few months later, he was sent to a correctional State training school. HSRP forwarded his medical record to the school, and as a result he was selected there for a pilot rehabilitation project conducted by the State DVR. His case is under DVR supervision in the special prison unit for continued service.

Z. lived with her grandmother at the time she was accepted for the sample. Her grandmother stated at that time that she felt Z. "was a nervous child" and "had emotional problems." The HSRP interviewer felt that Z. appeared to be "emotionally disturbed" and "to withdraw."

The initial psychological examination considered her to have a schizoid personality with depression and to be an "unusually dependent, infantile, narcissistic" girl who withdraws from life. The psychiatric examination was strikingly nonproductive. The psychiatrist considered her to have rather severe psychopathology, and described her as schizoid with the possibility of a schizophrenic reaction in the background. A neurological examination resulted in the strong opinion of the neurologist that Z. suffered from some type of brain pathology involving chiefly the basal ganglia. An EEG was negative.

Client was enrolled into the Experimental Group. She was punctual, almost never absent, cooperative and reliable. The final HSRP summary considered her to "have made the greatest improvement of any student in the program." During the entire period, however, she had shown a marked inability to express herself, or to articulate her thoughts. At the psychiatric reevaluation, the psychiatrist commented on "the paucity of information and the marked hesitancy in answering simple questions."

She was returned to high school by the "600" school after the end of the Project, and was one of only 2 students from the entire sample of the Initial Study Group to complete high school. Following graduation she secured a low level clerical job on which she worked out well and responsibly.

In the late fall of 1967, 5 years after her initial inclusion in the HSRP sample, she returned to HSRP requesting additional training as she felt she was not getting anywhere on her job. At this time she was tastefully and attractively dressed, and had had an unblemished behavior record from the first contact in 1962. However, she still was unable to talk, staring blankly at questions, or replying in monosyllables.

While her inability to articulate was not resolved as psychiatric or neurological in origin, in spite of psychological, psychiatric, neurological, EEG, and vocational examinations, as well as a 5 year intensive longitudinal experience with her, it was deemed by HSRP to pose a substantial vocational handicap. She was accepted for DVR service and was enrolled in a complete executive secretarial course to begin in January 1968, which was to complement the area of her high school training and was planned to elevate to a level nearer her optimum potential.

APPENDIX H-7

Case History of Deprivation

L. lived with her grandmother at the point of Intake and the unit was supported by the Department of Welfare supplementing a social security dependent allowance as a result of the death of client's grandfather. Client's mother had, over several years, been intermittently hospitalized for a mental illness. Client lived under constant verbal pressure from her grandmother that she would "go crazy" just like her mother. The indications from projective tests and counseling interviews suggested client's very low self image and inability to consider herself worthy of any help. She responded to the program sporadically and became pregnant at about 14 years 6 months. Her grandmother died before delivery after which, L. went to live with a maternal aunt who was also supported by welfare. Her mother returned to live with the unit and in a very short time client was pregnant again. She made several attempts to enter training but would withdraw and hide when visited in the home. Client has been known to have had 3 pregnancies and is just 18 at this point. Youth agency intervention and prenatal clinic care have been rejected. It is not expected that any present technique will reach this client.

N., an Experimental subject, was the oldest son of a middle class couple who resided in a private home outside of metropolitan New York City. Client's mother reports that he was always unmanageable and that she had defended him against his father's punitive attempts to correct him. Client manifested a nervous tic which was more pronounced when he was under pressure. His workshop behavior was below average and he was observed in tantrum states evoked by authority and/or required discipline. Client's mother reported that he became quite violent at home threatening his younger siblings and at one time destroying the family freezer and turning on the gas. Client had been hospitalized for 18 months before he was known to the Program. He refused training, was picked up by the police several times and refused medical care. Neither the family, school, nor counselors involved were able to reach this youngster in a meaningful way.

APPENDIX H-8

R. was an out-of-wedlock child who lived with his stepfather, mother, and 2 younger half brothers. He was suspended from regular school for being intoxicated and striking a teacher. At the initial examination the psychiatrist saw him as having very poor ego development with a susceptibility to [illegible] into antisocial patterns of behavior. The psychologist felt he had strong infantile dependent needs and had aggressive feelings that were poorly handled.

R. fell into the Experimental Group and was considered one of the more cooperative and friendly boys in the workshop. However, he was seen as immature and spent a great deal of time "horsing around." He seemed unable to become seriously committed. The final workshop report at the end of 18 months reported considerable deterioration, with R. drinking, shooting dice, and generally doing as he pleased. He would discuss getting a civil service job or joining the army, then with the next breath plan to have $150 suits and $30 shoes, usually winding up such sessions with "What's the use, Man? I'll just end up on the street."

R. was in and out of trouble with the law almost continuously during the Project. Shortly after its conclusion, he went south to visit relatives, and was arrested and convicted of car theft, and spent 1 year in prison in a southern state. After his release, he returned at once to New York. During incarceration his case was closed at HSRP.

Immediately upon his return to New York City he appealed to HSRP for help in getting a job. Although his case was closed, assistance was given in finding him work. This was to become a pattern over the next 3 years; every few months he came in to discuss problems and to request assistance where applicable. During this period he married and had a son. He also requested that HSRP assist his wife with advice and help in vocational planning.

During this period his antisocial orientation continued more or less unabated. He continued to be in trouble. However, in the fall of 1967, R. came in with a different request. He wondered if his case could be reopened and if he could receive some type of suitable vocational training as he had finally tired of his attitudes and wanted to give his life a different direction. He willingly participated in lengthy vocational planning and counseling and, HSRP, becoming convinced of his sincerity, reopened his case. He settled upon a career in the printing field, and after an extensive evaluation, was successfully entered into training in that area. It is expected that he will become gainfully employed within a few months.

F., lived with his father, stepmother, and sister in a middle class area in Queens. His father was a dynamic, forceful man who worked as a flightline mechanic at an aviation company. F. seemed never to be able to measure up to his father, and after his parents divorce, began to develop serious personality and behavior problems at the point of his stepmother's entry into the unit. About this time client's problems became so severe that he was sent to a correctional training school in upstate New York. Upon his return, he was placed in a "600" school, a usual procedure.

During the initial evaluations he impressed the psychiatrist as a relatively serious and purposeful boy who did not seem unduly impulsive or aggressive. The psychologist, on the other hand, commented on a great store of pent-up anger which he demonstrated, and which he could only release in a safe situation. He demonstrated a WISC Full Scale score of 77.

F. was placed in the Experimental Group and began the workshop in an even and uneventful manner. He was considered cooperative, responsive, and generally one of the better boys. The only time he was ever a behavior problem was the day after his father visited the shop to see what was happening.

Three months after entering the workshop, he ran away from home. Found, he was again placed in an upstate correctional training school. Released in a few weeks, he returned to the workshop, but only lasted a short while until he was in trouble again for stealing a car. While awaiting court appearance on this offense, he was arrested two more times for automobile theft. These last offenses precluded any other result than that he would again be incarcerated. He received 1 to 3 years in Elmira State Reformatory.

After 18 months, he was released on parole, and at the urging of his family, especially his father, he once again contacted HSRP for assistance. He had learned cooking while institutionalized and HSRP made appointments for him to be considered for work in this field, as he expressed such an interest. As usual, he was calm, responsive, and cooperative.

However, he didn't follow through with the referrals. His father called 5 weeks later to announce that client had again stolen a car, and had been incarcerated again for violation of parole.

APPENDIX I

BOARD OF EDUCATION

School Designation

☐ P.S. # .... ☐ High School ....
☐ J.H.S. # .... ☐ Special School ....

Address ....

1. Were your students involved in the Handicapped Students Research Program from:

   ☐ 9/62 to 9/64 ☐ Other (explain) ....
   ☐ 9/64 to 9/66 ....

2. Approximately how many students among those under your supervision were included?

   ☐ Less than 5 ☐ 5-10 ☐ More than 15 (Specify # approximately) ....

3. Do you feel that you had a relatively clear idea of the program's methodology?

   ☐ Clear enough to understand and interpret the communications to students.
   ☐ Relatively clear but able to get any clarification needed from HSRP staff.
   ☐ Vague idea of the overall structure.
   ☐ Knew only that such a program existed.
   ☐ No idea at all.
   ☐ Other (Please elaborate) ....
   ....
   ....

4. Was there any noticeable effect among your students?

   ☐ Vocational outlook appreciably improved.
   ☐ Minimal improvement.
   ☐ No observable change.
   ☐ Deteriorated vocational outlook.
   ☐ Other (Please specify) ....
   ....

5. Do you feel that the students involved in the research program were (in terms of their classified category, i.e., CRMD, HC, or "600" students)?

   ☐ Typical ☐ Atypical

6. Do you feel that your participation in the program should have been expanded?

   ☐ Yes ☐ No

   If yes, please state briefly in what way ....
   ....
   ....

7. Did you feel that there was a problem which warranted the type of exploration provided by the Handicapped Students Research Program?
☐ Yes ☐ No

8. Do you feel that the problem as it was examined could be, in any way, useful in your future planning?
☐ Yes ☐ No

9. Has this experience suggested to you any new areas for research in order to implement sounder *vocational* training and planning?
☐ Yes ☐ No
If yes, state briefly ....
....
....

10. Do you plan to use this experience in any way to benefit your students?
☐ Yes (explain) ....
....
....
☐ No (explain) ....
....
....

11. Since we submitted to you our cumulative findings, were you able to make constructive use of them?
☐ Yes ☐ No
If no, why? ....
....
....

12. Please expand on any points you feel pertinent to this program:
....
....
....
....
....
....
....
....
....
....
....

Discussion on Questionnaire — Board of Education Personnel Spring 1967

82 Questionnaires mailed

32 Responses	39.0
7 Responded, but unaware of program	8.5
1 Program no longer in school	1.2
42 Unanswered	51.3
	100.0

	Responded	*Unaware of Program*	*Program no longer in school*	*Unanswered*	*Total*
High School	15	7	0	21	43
Elementary and Jr. High School	17	0	1	21	39

In reviewing the "Response Chart" to this questionnaire, it is noted that of a total of 43 high schools and 39 schools of elementary and junior high school level were contacted, resulting in a reply from 15 high schools and 17 elementary and junior high schools. Since the program was originated at the lower grade level and subsequently transferred to the high school, the breakdown of lines of communication is evidenced by 7 of 15 high schools indicating an unawareness of the program although there is ample evidence of counselor visits to the school guidance department and correspondence with emphasis on the students' involvement with the research effort. The number of schools not responding reflects to some extent the many changes in school staff assignments.

Of the schools responding, 90 percent (29) felt that there was a problem warranting the type of exploration provided; 71.9 percent felt that the method used in examination might be useful in their future planning; 50 percent felt that the experience suggested new areas for research in order to implement sounder (student) training and planning.

The minimal response only suggests rather than confirms, the need for establishment of stronger communication channels in providing more effective services for these children.

APPENDIX J

PRIVATE VOCATIONAL

Name of Student ....

Date of Entry Into Your School ....

1. Did you evaluate this student prior to acceptance?
   ☐ Yes ☐ No (skip to ques. 3)

2. As a candidate for training the evaluation showed the student to be:
   ☐ Excellent (skip to ques. 4) ☐ Fair
   ☐ Good (skip to ques. 4) ☐ Poor

2a. (If fair or poor) Student was accepted because:
   ☐ There seemed to be some potential for training
   ☐ Desire of school to help this type of student
   ☐ Yielded to DVR desires to take chance with student
   ☐ Other (explain) ....
   ....
   ....

3. In relation to expectation, student's performance was:
   ☐ Superior (skip to ques. 4) ☐ Inferior
   ☐ Average (skip to ques. 4)

3a. (If inferior) Reasons for the student's poor performance were related to: (check more than one response if necessary)
   ☐ Poor academic ability (reading and math)
   ☐ Emotional instability
   ☐ Poor attendance
   ☐ Lack of apparent interest
   ☐ Other (explain) ....
   ....
   ....

3b. Circle response to above questions which seemed to be the *major* reason for inferior performance.

4. In your opinion, did the student need other services from DVR before being referred to you?
   ☐ Yes ☐ No (skip to ques. 5)

4a. (If yes) Specific services needed included: (check more than one if necessary)
   ☐ Remedial reading
   ☐ Remedial math
   ☐ Personal Adjustment Training (learning the proper way to cope with school and work)
   ☐ Psychological or personal therapy

☐ Other (describe) ....

5. Did the student successfully complete his program?
☐ Yes (skip to ques. 8) ☐ No

6. Is the student still enrolled in his program?
☐ Yes (skip to ques. 8) ☐ No

7. (If "no" to ques. 5 and 6) In your opinion the student, though unsuccessful in your school, has the capacity at present to succeed in a school of a somewhat different nature.
☐ No (skip to ques. 8) ☐ Yes

7a. (If "yes" to ques. 7) What type of school might you recommend?

8. After your experience with this student, would you take a chance with another student of this type in your school at the present time?
☐ Yes ☐ No

9. Describe your philosophy, based on your school experience, on coping with such a student and the methods needed to give him the most successful exposure to a vocational training experience. Be as frank as possible. Use back of sheet if necessary. (If you are being queried on more than one student, only one response for the group is needed.)

Name: (optional) ....
School position: (Director, Teacher, etc.) ....

Agency Comments (Private Vocational)

The private agencies saw these students with some apprehension and it was, therefore, necessary to prepare the school staff for some of the defensive and occasionally rebellious attitudes encountered in the earlier phases of adjustment. We used only 12 private training facilities selected because they had demonstrated a well disciplined but patient understanding approach to handicapped clients. Recognition of social disability, however, is relatively new and regular visits were planned to reassure administration as well as the enrollee. The schools, although carefully selected, varied considerably in their ability to adapt to the students needs. One administrator remarked that "this boy is stubborn and doesn't want to learn," another stated that "this fellow is not interested in learning," while our staff felt that there were considerable cross cultural differences in the adjustment which had to be evaluated. The very real problem, however, both from the trainor and trainee viewpoint, was the below grade achievement levels and the overwhelming need to succeed through an ever present failure syndrome.

It was felt that the majority of these schools did not understand the essential student problem which was admittedly quite complex. Only 2 schools applied their response to helping to solve the problem of client acceptance. The most realistic suggestion was that of a plan for individual tutoring for a given period as a preparation toward entering a classroom on a more competitive and productive level.

APPENDIX K

Differentials in Multidisciplinary Vocational Evaluation of the Young Disabled Student

— Morris Klapper

In reviewing preliminary data covering the first 2 years of a 5-year VRA-supported study[1], we were struck by an interesting secondary finding which undoubtedly conforms with much pragmatic experience of practitioners in the field, but which can be presented here with ample statistical verification. Working with 3 categories of severely disabled students, age 14 to 16, in New York City — (1) neuromuscular and orthopedic; (2) mentally retarded; and (3) "emotionally disturbed" or socially maladjusted, an intensive review of reports by a variety of professional examiners reveals significant differences in their perception of the same client; that is, their assessment of his current status and of his psychosocial and vocational potential.

In the admission process for this project, candidates received intensive examinations by highly competent professionals in medical, social, psychological, psychiatric, and vocational areas. Students who were admitted were then divided into experimental and "comparison" units; subsequently all were re-evaluated by the same examiners 18 months (3 semesters) later for comparison purposes.

Medical Evaluation

In the medical sphere, we learned that: a) medical referral data is frequently too "out of date" to permit a valid basis for diagnosis and vocational planning; b) school medical records often contain insufficient or fragmentary medical information; and c) educators tend to equate physical disability with "substantial vocational handicap" and consequently make consistently inappropriate referrals to vocational rehabilitation agencies. One student, for example, was referred and considered for the program with a school-recorded diagnosis of asthma. Because she seemed not to be displaying any of the expected symptoms, she was examined by the Project's medical consultant. Not only were medical findings negative for asthma or any other disability, the physician felt that there had been an absence of asthma for a considerable period of time. Consider also the following cases of two physically handicapped students:

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[1] "The Effectiveness of Early Application of Vocational Rehabilitation Services in Meeting the Needs of Handicapped Students in a Large Urban School System," a 5-year study sponsored by the N. Y. State Division of Vocational Rehabilitation, and financed in large part by a grant from the Vocational Rehabilitation Administration of the U. S. Dept. of Health, Education, and Welfare (R & D Project #829) under the general direction of Mr. Adrian Levy, Assistant Commissioner for Vocational Rehabilitation, New York State Education Dept., Morris Klapper, Project Director. The material presented here is an abbreviation of a considerably more detailed report.

a) *Case P. F.* — referred with below knee amputation, both legs, fitted with prosthesis

Project examination determined problems associated with ambulation caused by abnormal pelvis, e.g. stair-climbing, use of bus and subway, effect of prolonged ambulation, etc. These findings played major role in subsequent educational and vocational planning for the student. It was possible to designate him "a good risk for college training after he completes high school."

b) *Case E. D.* — referred with school record diagnosis of "Orthopedic-shortening of left lower limb"

Project examination and followup revealed past history and current status of "congenital cardiac condition." This finding necessitated a significant modification in earlier educational and vocational planning. In the vocational rehabilitation center his major problem was found to be due to his orthopedic disability, but "a tendency to fatigue, directly due to his cardiac problem."

These 2 cases are not atypical and strongly support the view that competent vocational assessment and planning require the acquisition of information based on thorough, competent, and recent medical examinations. Because the severely disabled tend, generally, to be multi-disabled, all pertinent sensory as well as physical areas need to be examined. Ascertaining the existence of an area of disability is not enough; it is more important to assess the *degree* of limitation — whether it be arm or leg motion, or visual, or hearing loss. Only then can accurate vocational judgments be made. Moreover, the medical course should be followed closely by continuous periodic re-examinations to record significant changes in medical status and/or their possible relevancy to the rehabilitation process.

Psychological Evaluation

Our psychological examination consisted of a battery including the WISC, selected projective tests, and the wide-range achievement, supplemented by a clinical appraisal. Most important, the examiner completed a 17-question rating scale[4] which consisted of 3 categories of questions: a) psychosocial status; b) self-perception; c) vocational potential. In all 3 disability groups, a considerable number of students demonstrated intelligence levels of 15 to 20 measured IQ points higher than that reflected in referral reports. It was possible to determine that referral reports had been either fragmentary, or that the examination had been conducted so far in the past — 10 years or more — as to have no valid application for the student at the present time.

The "incomplete" performance picture which the disabled student projects upon referral to the vocational rehabilitation agency cannot be taken at its face value. Serious and frequent disagreements in intellectual evaluation of the student by the teacher and psychologist appeared in responses on the rating scales, and are well illustrated by the following:

Case of E. D. (physically handicapped) — *Teacher* reports he is "retarded, with very little potential for further academic achievement; ability to profit from education, *below average*."

Psychologist reports he is "average intelligence, college potential, functioning irrationally due to depression and limited reading skill; potential is close to superior range of intelligence."

In his initial evaluation, this student was measured by the psychologist as follows:

WISC — Verbal	96
Full-Scale	105
Reading	5.3
Arithmetic	9.3

During the next 3 semesters, in addition to his regular school curriculum 3 days a week, and a special prevocational training program 2 days a week, this student received some remedial reading (although not as intensive as necessary) and arithmetic. After 3 such semesters, the student's re-evaluation showed:

WAIS — Verbal	114
Full-Scale	115
Reading	8.7
Arithmetic	10.2

In 18 months this student had gone from a reading grade of 5.3 to 8.7!

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[4] Similar rating scales were completed by the rehabilitation counselor, the psychiatrist, the teacher, and the vocational evaluator, thus permitting a refined comparison of evaluative judgments and vocational prediction.

The *psychologist* now reported "bright, normal intelligence, highly motivated, likeable, inquisitive, creative, emotionally well-adjusted; achieving well academically; all indications are for additional training at community college or technical college level."

The *teacher* now reported "*above average* ability to profit from education."

Coincidentally, but of significance to us here, the teacher initially had seen this student as "vocationally, minimally placeable," whereas, the psychologist saw him as "moderately placeable," the rehabilitation counselor as "moderately placeable," and the vocational evaluator saw him as "highly placeable!"

The importance of frequent, objective evaluation of severely disabled students cannot be overstated. Comparison of our test results between appraisal and reappraisal (18 month span), strongly suggests that this is not too short an interval for purposes of useful educational and vocational programming.[8]

Vocational Evaluation

Even more than the medical and psychological evaluations, the vocational evaluation was most indicative of diverse clinical judgments among the several professional disciplines examining the same student. Whatever the reason — difference in physical setting, variations in professional frame of reference, or the shifting aspect and degree of responsiveness of the student — the resulting interdisciplinary differences underline the serious limitations of current techniques of vocational evaluation and prediction, and the vital need for close interdisciplinary interaction for exchange of information and case planning. For purposes of illustration, we present here two of several questions from the vocational rating scale which was completed by the examiners: a) Placeability — i.e., the amount of effort required for job placement regardless of whether job is kept; b) Adjustability — i.e., degree to which employment can be maintained. Ratings were on a 4-point scale ranging from "highly placeable" to "unplaceable," etc. The responses on the rating scale were measured on a score range running from zero at the lower level to 75 at the upper level. A third question was rated by all professionals (except the teacher) involving the extent to which the student might be rendered employable by specific vocational training. All three questions constitute a category entitled, "Assessment of Vocational Potential." Some illustrative variations in predictive judgments follow:

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[8] Prevocational training for the Experimental students was conducted 2 days a week at the following agencies:
Physically handicapped at the Federation of the Handicapped
Mentally retarded at the Assn. for Help of Retarded Children
"emotionally disturbed" at the Federation Employment & Guidance Service.

For the physically handicapped experimental group: (High 75.0; Low 0.0)

by the teacher	39.6[4]
by the psychologist	47.5
by the vocational evaluator	41.2
by the DVR counselor	34.4

For the mentally retarded comparison group: (High 75.0; Low 0.0)

by the teacher	57.5[5]
by the psychologist	50.7
by the vocational evaluator	72.5
by the DVR counselor	51.9

For the "emotionally disturbed" comparison group: (High 75.0; Low 0.0)

by the teacher	39.6[6]
by the psychologist	54.5
by the psychiatrist	33.8
by the vocational evaluator	50.0
by the DVR counselor	51.1

Specific cases illustrate perhaps more vividly than statistical averages the extent of divergence that exists. Consider the following cases:

a) *Case E. D.* (Physically handicapped)— Estimate of Placeability

by teacher	Minimal
by vocational evaluator	High
by DVR counselor	Moderate
by Psychologist	Moderate

b) *Case M. C.* (Emotionally disturbed)

	teacher	psychologist	psychiatrist	vocational evaluator	DVR counselor
placeability	moderate	high	minimal	moderate	moderate
adjustability	moderate	high	low	moderate	moderate
potential for training	—	high	little	moderate	moderate

Striking as some of the differences in responses appear in the median ranges and in the 2 cases presented above, the case records offer even more dramatic evidence.

[4, 5, 6] Median scores.

To give one example which is not unique but rather illustrative, the following notations appear in one case by different examiners involved in the initial appraisal:

Psychiatrist — "Erratic acting out; not an explosive and unpredictable behavior pattern."

Psychologist — "She is not a very angry, hostile person."

Voc. Evaluator — "Hostile and threatening to others, prefers to work alone, vocational adjustment guarded." (This student was rated by this examiner "unplaceable.")

DVR Counselor — "Sulky and uncooperative; resents authority."

Summary

This paper reports on problems encountered in attempting accurate evaluation of a group of disabled students being considered for an intensive 2-year prevocational program, as part of a broader 5-year research and demonstration project.

Several observations are made on the reliability and applicability of multidisciplinary evaluative judgments:

1. Evaluation of the disabled person requires examination by a variety of qualified specialists — each operating within his own area of competence and in accordance with the highest professional standards.

2. Examinations in the various spheres should be sufficiently recent and thorough to permit intelligent and meaningful evaluative judgment, particularly in cases of severe disability where physical, sensory, and emotional factors are involved. Past examinations could have been incomplete or may have been conducted under conditions seriously prejudicing the chances of accuracy and thus have little or no current validity. The use of such data for planning purposes is wasteful in money and staff time and, most important, is irremediably harmful to the welfare of the person being served.

3. It is essential to provide for periodic re-examination to evaluate change — forward or backward — and thus be able to provide for appropriate intervention.

4. In order for referrals to be appropriate and for services to be realistic, all concerned should share similar concepts of the relationship between disability (physical or mental) and vocational handicap.

5. It is recognized and accepted that judgments on the same person will differ among professional disciplines; the essential need is that information be exchanged before planning is effected — that *multi*disciplinary become *inter*disciplinary evaluation.

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